COMPREHENSIVE DEVELOPMENT PLAN

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April 24, 1967

Missoula City-County Planning Board
County Commissioners, Mayor and City Council
Courthouse Annex
Missoula, Montana

Gentlemen:

In accordance with our contract, we are pleased to submit the Comprehensive Development Plan report for the Missoula Planning Area.

This report, together with the Phase I report submitted in May, 1966, summarizes the numerous findings and planning proposals presented and discussed during the past two years. The Plan, coupled with its companion piece -- the Urban Transportation Study report, incorporates many recommendations which are based on exhaustive studies and community goals and which are vital to the community's proper development. If benefits corresponding to the cost ratio of this program are to be realized during the next decade or two, this Plan should be approved and used as a guide by both public and private groups.

We gratefully acknowledge the cooperation received from citizens, officials and organizations with our special thanks to your Planning Director, Mr. Stephen Petrini.

Respectfully submitted,

Robert S. Clark
Robert S. Clark

RSC:m

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COMPREHENSIVE DEVELOPMENT PLAN

for

MISSOULA, MONTANA

Prepared for the

MISSOULA CITY-COUNTY PLANNING BOARD

by

Clark, Coleman & Rupeiks, Inc.
Planning and Development Consultants
Seattle and Helena

April, 1967

Project No. Montana P-17. Prepared under contract for the Montana State Planning Board and the Missoula City-County Planning Board. The preparation of this plan was financed in part through the Urban Planning Grant from the Department of Housing and Urban Development, under the provisions of Section 701 of the Housing Act of 1954, as amended.

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INTRODUCTION

In 1964, the Missoula City-County Planning Board, revitalized by clarification of State legislation pertaining to the constitutionality of zoning laws, embarked on an accelerated planning program in order to minimize the three years lost by municipalities in the State of Montana to legal entanglements.

Encouraged by the Mayor, the Chamber of Commerce and other groups, the nine-member board interviewed numerous Western consulting firms, selected Clark, Coleman & Rupeiks, Inc., and in 1965, hired Mr. Stephen Petrini as Planning Director.

About this time, a unique opportunity was presented to the community. Concurrently with the Planning Board contemplation of a '701' planning program for its jurisdictional area, the State Highway Commission was considering the preparation of a complete Urban Transportation Study for the Missoula urban area. In a majority of instances throughout the United States, the practice has been for a local agency at one point in time to prepare land use and community facilities plans and at another point in time for a state highway department to prepare an Urban Transportation Study and a Thoroughfare Plan. Missoula is one of the few communities in the entire United States to have both programs fully coordinated and sponsored by one local agency, namely, the City-County Planning Board and to have both programs prepared by a single consulting firm.

Too often in the past, with other communities throughout the United States, a Major Streets and Highways Plan has not been in agreement with the Land Use Plan or vice versa, or when one plan element has been prepared by a State agency and another plan element by a local agency, considerable friction has resulted in trying to resolve differences at the two levels of government. Thus, in the case of Missoula, the two basic conflicts of time and governmental jurisdiction have been avoided, for with all of the plan elements prepared in a synchronized and coordinated manner, few general developmental policy decisions appear open for some future deliberation. It is for these reasons that this program and these past two years of planning effort in the community are almost without parallel in the United States. The entire community can be proud of the program for it has been, and will continue to be, of considerable benefit to the City, the County and the State.

This report is but one of a series of reports. In the spring of 1966, a brief progress report was prepared which was a synopsis of the first year's work consisting primarily of surveys of existing conditions throughout the community. This report, the Comprehensive Development Plan, contains the four principal parts of a complete Comprehensive Plan, namely the Plan for Land Uses, the Plan for Community Facilities, the Plan for Major Streets and Highways and the Central Business District Plan. This report should be considered as the basic technical document for the Land Use and Community Facilities Plan elements and part of the Central Business District Plan. The Urban Transportation Study technical report, a companion piece, should be utilized for the traffic and transportation aspects of the community as well as for details of circulation and parking in the Central Business District. The highlights of these two reports have been combined into synopsis form for a popular report which can be distributed widely.

The following objectives of the Plan, embodied within the framework, are to:

- Achieve an orderly, functional and economic urban land development pattern and full administer to the needs of the general public.
- Strengthen the economic base of the community by encouraging additional industries and businesses to locate in Missoula. Business and industry, like other urban uses, require a buffered, encroachment-free area with adequate space, utilities, streets and attractive surroundings.
- Preserve and protect new and good neighborhoods with adequate zoning and development standards. Other neighborhoods, poorly developed or seriously blighted, should be restored through rehabilitation or redevelopment. Planned urban renewal programs should be initiated to reclaim areas where blight exists or may be expected, thereby returning the land to a more productive and better use.
- Discourage decentralization of certain commercial uses from the Central Business District by providing improved traffic circulation, adequate parking, pedestrian safety and an environment attractive for shoppers and profitable for merchants.
- Provide additional land for University expansion. The University of Montana should be recognized as a valuable asset to the community as a center of education and culture and also an important segment of the community's economy.
- Designate a planned, feasible system of thoroughfares, classified by function for the Planning Area, to

facilitate traffic movement, to control traffic volumes and residential areas and to provide efficient and congestion-free travel for the people. Rights-of-way must be preserved for future streets in areas yet undeveloped.

- Determine areas for water and sewer service required to ensure adequate systems for future needs and in newly developed areas. Sites and methods for waste disposal should be designated for future needs. Present and future pollutants of the many natural resources in the Planning Area, especially air and water, should be reduced and controlled.

- Select optimum locations for community services such as fire stations, library, museum, City Hall and post office to best satisfy public need.

- Provide for adequate school sites and facilities, based on accepted standards with regard to area and classroom requirements, and to acquire sites well in advance of urban development for the sake of economy.

- Expand and equitably distribute areas for open spaces, parks, recreational and cultural facilities within the urban area. These facilities should be in accord with recognized standards to provide for the recreational needs of all citizens of all ages.

- Preserve mountainous areas and water courses in the Planning Area for future generations.

The Missoula Planning Area, under the jurisdiction of the City-County Planning Board, includes the City of Missoula and its urbanizing fringe extending approximately four and one-half miles in each direction out from the corporate limits. The Planning Area, covering an area slightly over 100 square miles with a current population of approximately 46,430 persons, lies in a wedge-shaped basin surrounded by sharply rising mountains. The location has made it a natural transportation focus in that the major east-west and north-south routes of western Montana come together here. This strategic location has made the Missoula Planning Area the principal business and employment center for a large portion of western Montana and parts of Idaho.

The Comprehensive Development Plan for the Missoula Planning Area has no direct legal effect on property and should not be looked upon as an exact blueprint for future development. The preparation of the Comprehensive Development Plan is an essential, but only an initial, step in the planning process. The Plan should be utilized continually as a guide for both public and private development programs. Implementation of major portions of the Plan requires the legal adoption and enforcement of various codes and ordinances, including such items as subdivision regulations, zoning ordinance, urban renewal and capital improvements programming. All four of these tools are now being utilized or actively considered by the community. The City has a zoning ordinance which will be reviewed and updated during the next year to correspond to the goals and policies of the Comprehensive Development Plan. A draft set of subdivision regulations has been prepared and presented to the Planning Board for review and modification, preparatory to adoption by the community. Urban renewal is being considered and, at the present time, a Workable Program for Community Improvement is being prepared. The community's first capital improvements program will be prepared during the ensuing year.

The goal of the Comprehensive Development Plan is the realization of an efficient, convenient, pleasant and attractive environment encouraging development of Missoula and its environs as an integrated urban complex with distinct areas for living, shopping and working. It cannot be overly emphasized that this Plan is not a fixed, rigid blueprint requiring strict adherence. To be an effective document, this Plan requires periodic review to keep pace with contemporary information and innovations. It should grow with the community and be a regular reference for all involved, or responsible, in shaping the community. Such procedures will ensure concerted and related decisions, thereby achieving the basic goal of community improvement for the common good.

CHAPTER 1

POPULATION AND ECONOMY

The Missoula of history has exhibited a stable and steady rate of growth, both of its economy and of its population. Typically, because it is an urban area and because such areas tend to grow more rapidly, Missoula has come to hold a larger share of the State of Montana and of Missoula County. These established trends toward urbanization and centralization are expected to continue in the future.

Natural resources, notably timber, have long served as the backbone of the City's economy, but the University of Montana has increased, and probably will continue to grow, in economic importance. Too, the larger selection of goods and services added to meet the needs and wishes of the growing population has attracted the dollars spent for such items from the residents of the six-county region surrounding Missoula. This segment has also assumed an economically important position that is expected to grow along with the population.

The population and economy, including employment, expected for Missoula and its urbanizing fringe by 1985 are explored in this chapter.

Economy and Employment

No major changes are foreseen in the economy of the Missoula Planning Area during the planning period. Expectations are that those factors, noted in the first phase report, which have stimulated and sustained the Area's economic growth in the recent past, will remain operable in the future.

Those industries that rely upon the timber resources of the Missoula area will probably continue in their growth, although at a slower rate than recently experienced. An employment surplus could be created through reduced manpower requirements in the forests themselves, but greater utilization of forest products and by-products is expected to alleviate any slack in employment.

The City's role as the Regional commercial and business center of the area extending throughout Missoula County and the five neighboring counties of Granite, Lake, Mineral, Ravalli and Sanders is expected to grow even stronger. Finally, the additional enrollment forecasted for the University is substantial and future economic growth will be sustained by the expected increase.

Current Employment

In 1965, slightly over one-third of the total 46,430 people in the Planning Area were counted as part of the employed labor force. On the basis of information from home interview data collected during the Transportation Study, an estimated 15,200 persons were working within the Planning Area. These workers account for 84 percent of the total 1965 County employment, which was estimated at 18,200 persons. Trade, government (including education) and services, in that order, were the largest employment categories within the Planning Area, together comprising over two-thirds of the total work force. As shown in Table I-1, giving the estimated employment be category for the County, Planning Area and the remainder of the County, the total County employment in each of these three large groups was heavily concentrated within the Planning Area. In only one category of Planning Area employment - agriculture - was the representation larger in the balance of the County.

Appendix A, which gives the distribution of Planning Area employment by analysis zone, notes that approximately 5,200 persons worked within the Central Business District (CBD). The CBD contained over 70 percent of the Planning Area's finance, insurance and real estate employees and slightly less than one-half of its service workers. Overall, the CBD hired 34.1 percent of the total Planning Area labor force.

TABLE I-1

ESTIMATED 1965 EMPLOYMENT

	County	Planning Area	Balance
Agric., Forestry	700	100	600
Construction	950	700	250
Manufacturing	3,200	2,000	1,200
Trans., Comm., Util.	1,470	1,400	70
Trade	3,900	3,700	200
Fin., Ins., Real Estate	750	650	100
Services	3,230	2,950	280
Government[a]	4,000	3,700	300
TOTAL	18,200	15,200	3,000

[a] Includes Education

Source: Estimates by Clark, Coleman & Rupeiks, Inc.

Projected Planning Area 1985 Employment

Missoula County employment is expected to increase to 28,440 workers by 1985, an increase of 10,200 persons in the twenty year period. This anticipated gain of an average 2.8 percent annually is somewhat less than the 3.5 percent per year increase experienced during the twenty year period prior to 1960. The most substantial growth rates are forecast for the services group and for the finance, insurance and real estate category, which are expected to average gains of 3.6 and 3.9 percent annually over the period.

Total employment within the Planning Area is expected to reach 24,320 by 1985, an increase of 9,100 workers, or about 450 new employees annually. In both the Planning Area and the County, the share of the total population included in the labor force is expected to remain essentially the same in 1985 as it had been in 1965. Appendix B gives the expected employment by analysis zone within the Planning Area by 1985.

The categories of Planning Area employment forecast to change the most are government, including education, services and trade. By 1985, these three groups are expected to add 2,200, 2,000 and 1,800 workers, respectively. Manufacturing employment will likely reach 3,400 by 1985, a gain of some 1,300 workers, as noted in Table I-2, summarizing the 1985 employment forecast for the County, Planning Area and the County excluding the Planning Area.

The most substantial rate of growth is expected to occur in the finance, insurance and real estate group. The forecast figure is 1,230 employees, nearly double that of 1965.

TABLE I-2

FORECAST OF 1985 EMPLOYMENT

	County	Planning Area	Balance
Agric., Forestry	880	90	790
Construction	1,330	980	350
Manufacturing	5,010	5,010	1,630
Trans., Comm., Util.	2,220	2,120	100
Trade	5,860	5,560	300
Fin., Ins., Real Estate	1,340	1,230	110
Services	5,550	5,020	530
Government[a]	6,250	5,940	310
TOTAL	28,440	24,320	4,120

[a] Includes Education

Planning Area's Retail Trade

The position of Missoula as the retail center of a trading area extending throughout five neighboring counties, and occasionally even further, was substantiated through detailed study in the first phase report. Figure 1, showing the trade area for Missoula's merchants, was the result of a questionnaire sent out to those merchants requesting that they outline on an attached map the approximate limits from within which their customers come.

The Planning Area, during the years 1954, 1958 and 1963, is estimated to have sold better than 85 percent of total County retail sales. As noted in Table I-3, Planning Area sales of primary goods, or those general merchandise, apparel and specialized items, often accounted for total County sales of those items. Among those outlets dealing in furniture and appliances, new and used automobiles and among eating and drinking establishments, termed "secondary" retail, the same was true as for primary. Only in the convenience line (food, drug, hardware stores and service stations), where the stores are likely to be close to the populations they serve, did County sales far exceed those of the Planning Area.

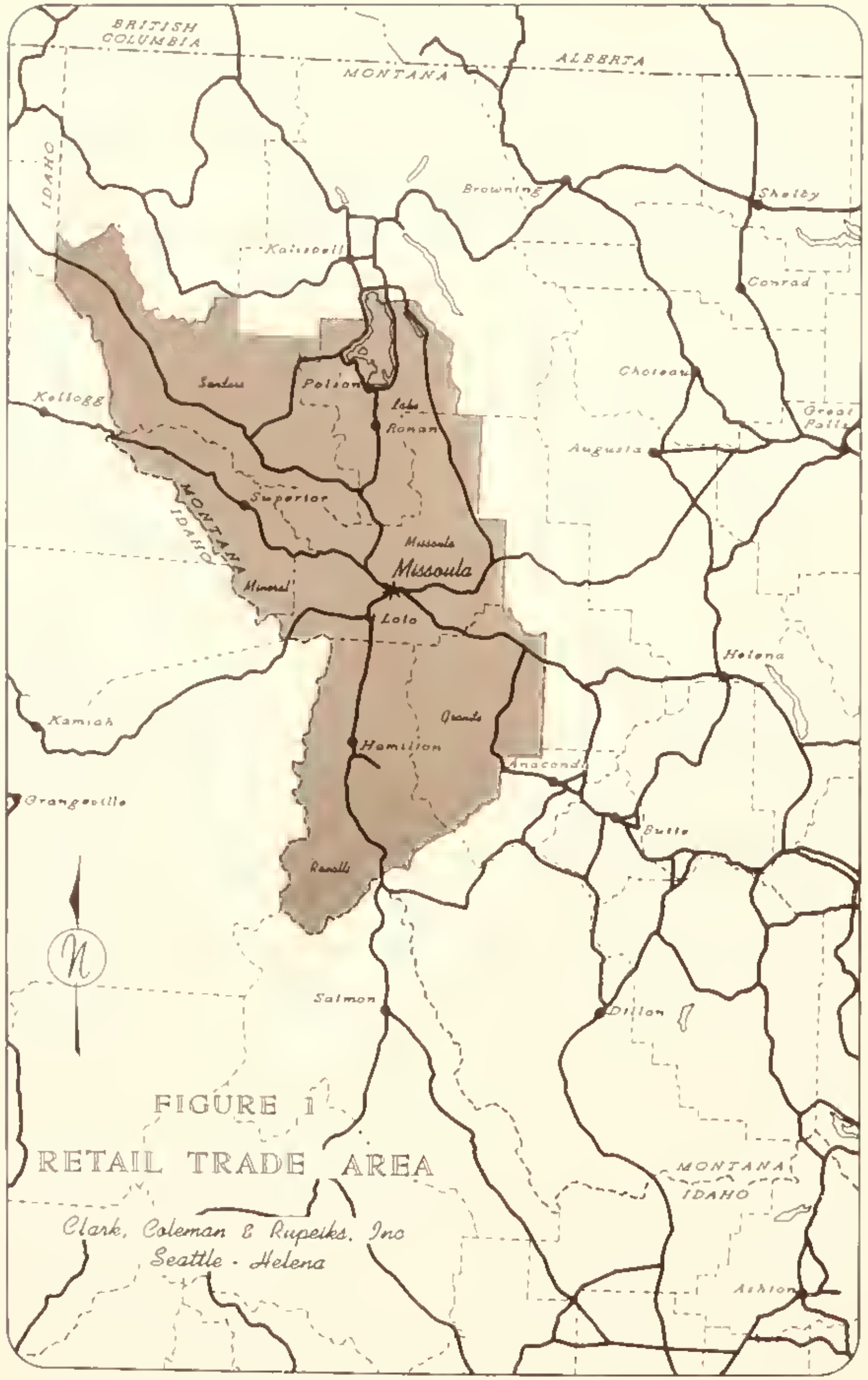

FIGURE 1

RETAIL TRADE AREA

Clark, Coleman & Rupeiks, Inc
Seattle · Helena

TABLE I-3

COUNTY AND PLANNING AREA RETAIL SALES[a]

	County			Planning Area[b]		
	1954	1958	1963	1954	1958	1963
General Merchandise	3,439	7,284	9,638	3,439	6,556	9,638
Apparel	2,252	2,257	3,191	2,252	2,257	3,191
Other	5,129	5,168	7,412	4,616	5,168	6,671
Primary Total	10,820	14,709	20,241	10,307	13,981	19,500
Furniture - Appliance	2,494	3,033	2,856	2,369	2,730	2,856
Automotive	10,529	11,271	15,002	10,529	10,144	13,502
Eating and Drinking	4,461	4,531	6,682	3,123	3,172	6,680
Secondary Total	17,484	18,835	24,540	16,021	16,046	23,038
Food	9,946	13,828	17,138	7,460	11,062	17,138
Drugs	1,354	2,043	2,650	1,354	2,043	2,043
Hardware	5,236	5,706	7,008	4,189	4,565	6,307
Service Stations	3,912	5,267	7,330	2,934	3,950	6,597
Convenience Total	20,448	26,844	34,126	15,937	21,620	32,085
GRAND TOTAL	48,752	60,388	78,907	42,265	51,647	74,623

[a] In thousands of dollars.

[b] Estimates by Clark, Coleman & Rupeiks, Inc.

Source: U. S. Census of Business, Retail Trade

Based upon the per capita disposable income of Planning Area residents, and the probable percentage of this sum available for retail expenditures, the actual retail sales of Planning Area merchants are nearly equal to the amount for such expenditures available from the population. As shown in Table I-4, the Planning Area improved its retail drawing power between 1954 and 1963. In the table, a figure of 100.0 would indicate equality between actual sales and available dollars; less than 100.0 indicates a loss of potential sales to other areas and greater than 100.0, an attraction for outside retail expenditures.

TABLE I-4

PLANNING AREA ACTUAL SALES AS A PERCENT OF AVAILABLE RETAIL DOLLARS

	1954	1958	1963
Primary	102.5	127.6	133.4
Secondary	106.0	98.5	103.5
Convenience	82.6	92.7	106.3
TOTAL	95.0	101.8	102.5

As depicted graphically in Figure 2, the Planning Area has also improved its position as the repository for available retail dollars from residents of the entire six-county Region.

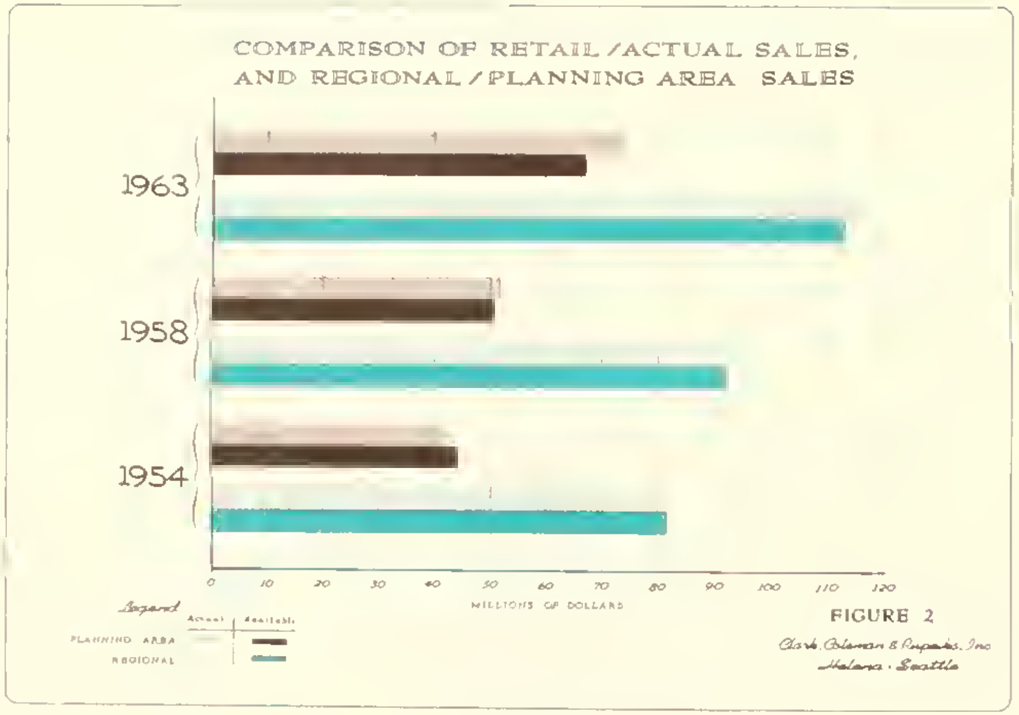

FIGURE 2

1965 Planning Area Sales

An estimated $78.6 million in sales were done in the Planning Area in 1965, distributed as shown in Table I-5. The 1965 sales represent a nearly identical share of available dollars captured as in 1963, since only two years had elapsed. The Planning Area share of total expenditures available from throughout the Region also closely approximated that of 1963. Primary sales made up 26.4 percent of total sales, secondary items sold accounted for 30.8 percent and sales in the convenience group were 42.8 percent.

TABLE I-5

1965 RETAIL SALES[a]

	Primary	Secondary	Convenience	All Retail
Region	29,202	38,795	58,130	126,127
County	21,312	26,513	36,554	84,379
Planning Area	20,762	24,234	33,593	78,589

[a] Sales in thousands of dollars.

Between 1965 and 1985, the Planning Area is expected to show a $33.3 million increase in retail sales for a total of $112 million in business by the latter year. Expected sales for the Region, County and Planning Area are shown by general category in Table I-6. The Planning Area is likely to increase its share of the total retail dollars available in the Region to about 72 percent by 1985, continuing the trend noted in the 1954 to 1963 period.

TABLE 1-6

1985 RETAIL SALES[a]

	Primary	Secondary	Convenience	All Retail
Region	36,121	48,397	73,969	158,487
County	31,514	37,496	51,616	120,626
Planning Area	29,147	36,040	46,813	112,000

[a] Sales in thousands of dollars.

1965 and Projected 1985 Retail Floor Space

The 1965 inventory of retail floor space in the Missoula Planning Area revealed a total of nearly 1.9 million square feet. Broken down by category in Table I-7, this total amounted to sales of approximately $42 per square foot for retail merchants, a figure corroborated by the responses given by those merchants to a questionnaire.

The Central Business District, to be covered more intensively in Chapter V, was found to contain nearly 40 percent of the retail floor space in the Planning Area. As expected, primary floor space was concentrated in the CBD, secondary space was more dispersed and less than one-fourth of the Planning Area's convenience floor area was found in the downtown area.

TABLE I-7

1965 RETAIL FLOOR AREA

	Planning Area Sq. Ft.	$ Sales Per Sq. Ft.	CBD Sq. Ft.	CBD Percent of Total
Primary	487,817	42.17	277,272	56.8
Secondary	652,443	37.94	305,068	46.7
Convenience	731,540	45.67	159,277	21.7
TOTAL	1,871,800	42.03	741,617	39.6

Source: Survey and questionnaire by Clark, Coleman & Rupeiks, Inc.

Based upon the expected increase in total retail sales within the Planning Area, and the sales of retail establishments per square foot of floor area, an additional 722,860 feet of retail floor space will be needed by 1985. As shown in Table I-8, the largest share of the new space is anticipated for secondary establishments. Of the twenty-year expected gain in floor area required, about 29 percent is likely to be needed within the CBD. As shown in the table, of the

174,170 square feet of new primary floor area, slightly over one-half will probably locate in the CBD. About one-third of new secondary floor space will likely be demanded within the CBD and only four percent of the gain in convenience goods floor space.

TABLE I-8

FORECAST OF 1985 RETAIL FLOOR AREA

	1965-85 Inc.	1985 CBD	1985 Outlying	TOTAL
Primary	174,170	367,620	294,370	661,990
Secondary	315,760	413,880	554,310	968,190
Convenience	232,930	169,290	795,170	964,460
TOTAL	722,860	950,790	1,643,850	2,594,640

A flourishing economic sector assumes, of course, an expanding population capable of supporting it. It is this larger population that demands a wider selection of goods and services and that provides the enlarged labor force needing added floor space. Upon satisfaction of these demands and needs, residents spend those monies, both through transactions and taxes, necessary to keep the community's economy prospering.

Population

From the turn of the century to 1960, the six-county Missoula Region grew from 26,000 to more than 83,000 people. In the succeeding years, the Region increased by about eight percent annually for an estimated 90,300 persons by 1965.

The 9,100 persons added to Regional population between 1950 and 1960 were all added within Missoula County, giving evidence of an increasing centralization of population.

The County, containing less than 40 percent of the Region's population in 1930, had grown to 44,663 by 1960 and held more than half of the Region's population. The 1965 County held an estimated 50,200 persons.

Within the County, the increase has been within the Planning Area. This Area's share of County population grew from three-fourths to almost 90 percent between 1930 and 1960. Within the Planning Area, however, a marked suburbanization of population has taken place. About 90 percent lived within City limits in 1930, contrasted with only two-thirds by 1960. The 1960 Planning Area held approximately 40,000 residents, increasing, according to Transportation Study information, by 3.4 percent annually for an estimated 46,430 persons in 1965. Fully one-fourth of the Planning Area's gain was the result of persons moving into the Area to take advantage of new employment opportunities.

Table I-9 gives the population growth of the Planning Area from 1930 to 1965. In 1930, it contained three percent of the State's population and 75 percent of the County's; by 1960, these percentages had increased to 5.8 and 89.0, respectively. The Planning Area's rate of growth, however, has slowed somewhat, from 3.8 percent annually between 1930 and 1940, to about 2.8 percent between 1950 and 1960. The 1965 population estimate of 46,430 represents a 2.7 percent annual gain since 1960, for 6.4 percent of the State's and 90 percent of the County's 1965 population.

TABLE I-9

PLANNING AREA POPULATION
1930-1965

Year	Number	Percent of County	Percent of State
1930	16,368	75.1	3.0
1940	22,635	77.9	4.0
1950	31,147	87.7	5.2
1960	39,759	89.0	5.8
1965[a]	46,430	90.0	6.4

[a] Estimate by Clark, Coleman & Rupeiks, Inc.

Source: United States Census of Population

The distribution of Planning Area population for each of the 117 analysis zones is given in detail in the Appendix. The zones containing the University of Montana and immediately sourrounding that institution were, as might be expected, the most densely occupied. Those zones containing stores and businesses, as well as those with Missoula's industries and large public buildings, generally had the smallest resident populations.

The 1965 Planning Area population occupied 13,300 housing units, excluding University-owned housing, at an average density of five units per acre The data in Table I-10, giving the number and percent of persons by housing structure type, was collected in the course of the Transportation Study A further breakdown of the number of dwelling units by analysis zone can be found in Appendix A

TABLE I-10

PLANNING AREA POPULATION BY DWELLING UNIT
STRUCTURE TYPE 1965

Structure Type	Non-University Population	Percent	U M. Housing Population	Total Population
Trailer	1,285	3.0	---	1,285
Single-family	35,855	82.7	---	35,855
Duplex	2,949	6.8	---	2,949
3 & 4 units	1,281	3.0	99	1,380
5 - 20+ units	1,265	2.9	539	1,804
Rooming House	102	.2	---	102
Hotel	170	4	---	170
Motel	325	.7	---	325
Institutional	135	.3	2,425	2,560
TOTAL	43,367	100.0	3,063	46,430

Nearly 83 percent of the non-student population lived in single-family dwellings. Another seven percent were in duplex units. Approximately four-fifths of the 3,063 students residing in University-owned housing lived in dormitories, while the remainder chose dwellings with from three to twenty or more units, such as fraternities, sororities and married student housing. The students in non-University housing, numbering 558, chose apartments or rooming houses found, in most cases, in zones contiguous to the University.

Characteristics of the Population

Although population characteristics of the Planning Area are not available, a survey of such elements in the City and County can produce a representative picture.

During the 1950-1960 decade, the increase among non-working age groups made up most of the population gain in the City. The number of preschool children increased by one-third, the number of children five through 14 by 55 percent, and the number of persons over 65 by 42 percent. The entire working age group, ages 20 to 64, grew by less than nine percent. In the latter category, the County's increase was 22 percent, indicating the popularity of suburban areas outside the City for working-age persons. Data from home interviews of the Transportation Study showed a 1965 preschool population of 5,128 and 14,079 in the five through 16 age group in the Planning Area.

The 1960 age-sex composition comparisons showed a higher percentage of females in the City than in the County, probably a reflection of the presence of female college students and more employment opportunity for women. There were lower percentages of preschool and school-age children in the City, most likely because the working-age people are also the people most likely to have children of these ages. The median age of the City's population was 27.5 years and of the County's, 26.2 years.

Nearly 45 percent of Missoula's citizens in 1960 were born in another state, although only five percent were foreign-born. Over 9,500 people had been living in their homes only a year at the time of the 1960 census, and about 70 percent had moved in between 1955 and 1960. The importance of immigration in the Planning Area's recent growth has been pointed out previously.

The median family income in 1959 in Missoula was $5,847 and in the County, $5,769. Transportation Study data showed a 1965 median family income of $6,227 in the Planning Area.

Forecast of 1985 Population

The expected State population for 1985 was first needed before a Planning Area figure for that year could be estimated. The Series II-B forecast for Montana of the United States Bureau of the Census, or that derived through a convergence of the 1955 to 1960 migration rate and a very moderate decline in fertility rates, adjusted by the Montana State Planning Board estimates for 1960-1965 produced the State's 1985 projected population. To arrive at the Planning Area's expected population, the "step-down" method was used; that is, the expected relationship of Region to State, County to Region, and Planning Area to County, based on past trends.

Implicit in these, as in any forecasts, is the assumption that basic social, political and economic factors in the United States, the State of Montana and smaller units will not undergo much change by 1985.

An increase of 203,000 over 1965 for a total of 908,000 persons is anticipated for the State of Montana. The six-county Region's share of this, 13.6 percent by 1985, would amount to 123,600 persons. Missoula County's estimated 1985 population is 78,200, an increase of 27,970 over 1965. The 1985 figure means an increase to 63.2 percent of the Region and to 8.6 percent of the State.

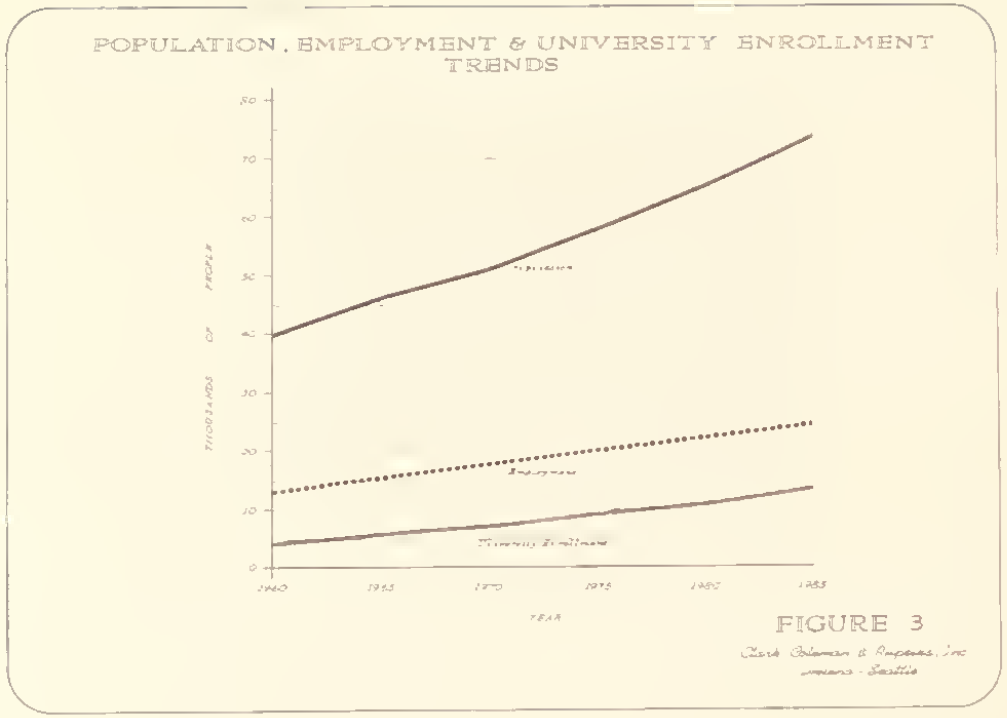
POPULATION, EMPLOYMENT & UNIVERSITY ENROLLMENT TRENDS

FIGURE 3

Clark Coleman & Rupeiks, Inc

Assuming a continuation of the trend toward centralization of population within the County, the Planning Area will likely increase to 73,500 persons by 1985. A gain of approximately 27,000 over 1965, the new population will account for 94 percent of the County, nearly 60 percent of the Region and eight percent of the State. The forecast figure represents an average annual gain of 1,350 persons, or 2.9 percent per year. Population trends to 1985, including trends within the University, are shown in Figure 3.

As indicated in Table I-11, the bulk of the population increase, 16,965 persons, will probably live in single-family dwellings, meaning that 81.5 percent of the projected 1985 population resides in such units. Another 1,651

TABLE I-11

PLANNING AREA POPULATION BY DWELLING UNIT STRUCTURE TYPE 1985 (Non-University)

Structure Type	1985 Population	Percent Population	1965-1985 Increase
Trailer	1,929	3.0	644
Single-family	52,820	81.5	16,965
Duplex	4,600	7.1	1,651
3 & 4 units	2,135	3.3	854
5 - 20+ units	2,260	3.5	995
Rooming House	145	.2	43
Hotel	256	.4	86
Motel	475	.7	150
Institutional	200	.3	65
TOTAL	64,820[a]	100.0	21,453

[a] Excludes 8,680 in dormitory students and married students and their dependents.

persons are likely to choose duplexes, for a total of 4,600 persons in that structure type by 1985 The total populations expected by 1985 in trailers, three to four and five and more unit multi-family dwellings are also substantial, as the table shows.

Housing Requirements of the University of Montana

Because of population growth generally, and the new and ever larger demand for higher education, the anticipated growth of the University of Montana is a major factor in the increase expected in the Planning Area. In the past, the University has provided a significant number of jobs and has been an important factor in the attractiveness of Missoula for newcomers.

By 1985, the University is expected to enroll 13,200 students. This estimate assumes the accuracy of the projections of Sasaki, Walker, et al., to 1975 and a continuation of the trend toward a larger number of state university students enrolled per 1,000 population. An assumption is also made that the University's share of State system enrollment will decline somewhat. The State system included 15,732 students in 1965, of which the University enrolled 5,492. In 1985, the State is expected to have 40.300 enrolled; the University share will be 32.6 percent. The number of students requiring University housing is expected to reach 8,680 by 1985, an increase of over 5,600 in 20 years. Based on the Sasaki, et al. estimate that 43 percent of full-time students will be housed in dormitories, the increase will create a demand for 5,680 dormitory spaces. About 2,200 of these spaces were available in 1966, housing 35 percent of full-time students.

The demand for married student housing will also increase. Sasaki, et al., estimated that the proportion of married students would increase from 17 percent of total enrollment to the national figure of 25 percent by 1985. Assuming this increase, and the continuation of the 1965 ratio of one unit provided for every 3.29 married students enrolled, approximately 1,000 married students' units will be needed. In 1964, 290 such units were available.

CHAPTER 2

LAND USES

Having determined the existing, and projected the future population and economy of the Planning Area, the actual uses to which the land is currently and probably will be subjected should be known Given a projected population and the number residing in each type of structure, a projected employment and the number working in each type of job, and the likely growth of such aspects as retail trade and student enrollment at the University, both the different uses and the amount in each use for each parcel of land in the Planning Area can be estimated.

Characteristics of the Land

The City of Missoula and its urbanizing fringe comprise the Missoula Planning Area. The Planning Area envelopes an area of 69,517 acres, of which approximately 14 percent is developed. As depicted in Figure 4, water areas account for another 1,128 acres and the remaining 84 percent, 58,354 acres, is vacant land. This vacant land is broken down into three categories: vacant marginal land with slopes in excess of 25 percent; vacant marginal land susceptible to flooding; and vacant land suitable for development. In the first category are 27,744 acres located mostly to the north and west of the City; in the second are 3,930 acres on both sides of the Clark Fork River below the Russell Street Bridge. The currently vacant land suitable for development comprises 38.4 percent of the Planning Area and is located, for the most part, to the south and west of Missoula with smaller amounts near East Missoula and along Rattlesnake Creek.

Existing Uses of the Land

Of the total 10,034 acres in developed urban land, public use is the largest single occupant, using 3,241 acres, or 32 percent of the total. Schools account for 402 acres of this, 117 acres of which are given over to use by the University. Slightly over 219 acres are in parks throughout the Planning Area. The remaining public use acreage is taken up by Federal, State, County and City agencies. The Missoula County Airport, sited on 1,247 acres west of the City, takes up the largest area in public use, although the Fort Missoula site, on 694 acres southwest of the City, and the University Nursery, using 254 acres west of Missoula, also consume large amounts

The streets and highways of the Planning Area occupy 2,759 acres, or 28 percent, of the developed land and constitute the second largest land use category.

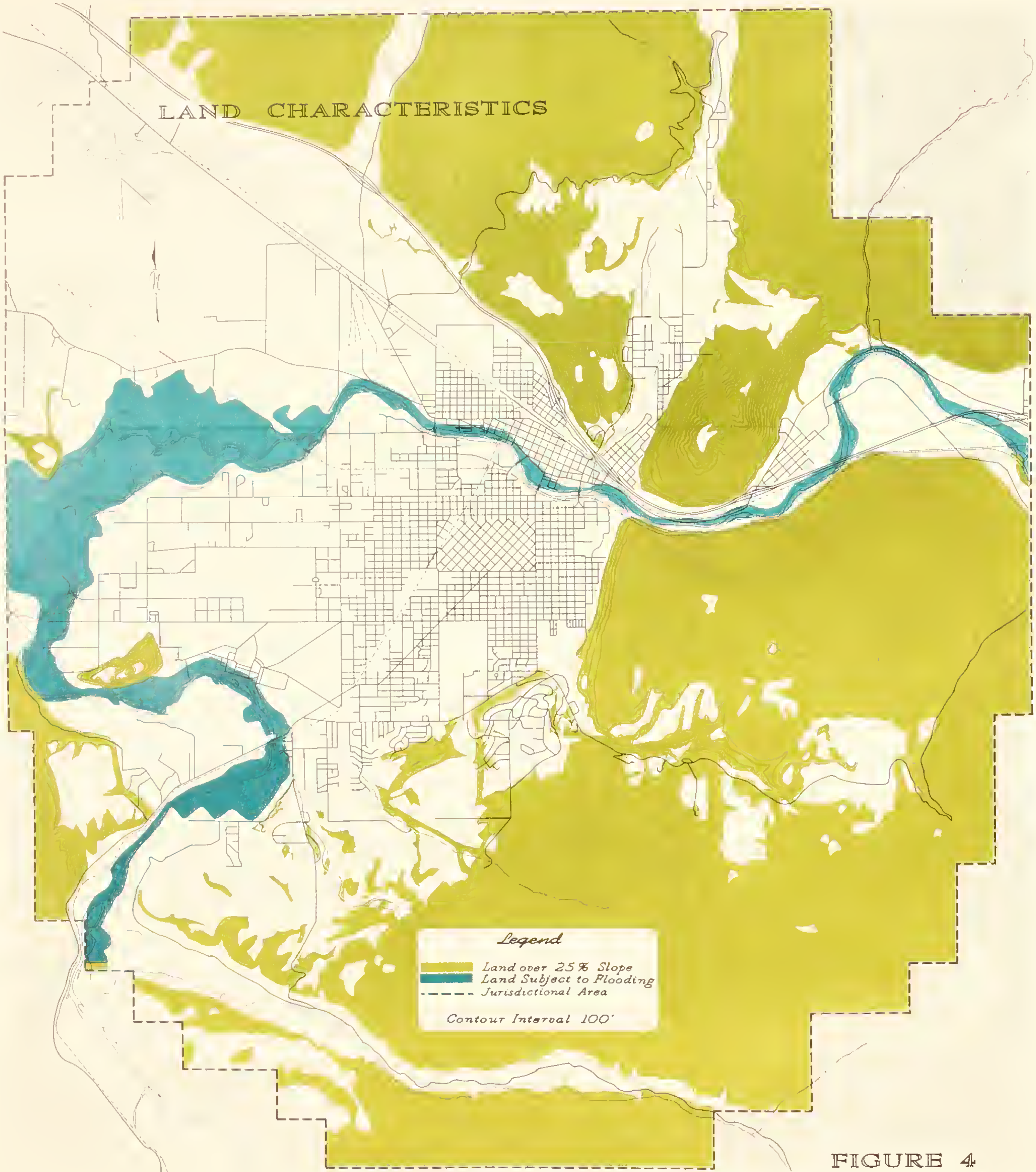

FIGURE 4

Clark, Coleman & Rupeiks, Inc.
Helena - Seattle

Figure 5, giving existing land use for the Planning Area, shows 2,593 acres, 26 percent of developed land, in residential use. Ninety-three percent of this is in single-family units found throughout the Area. Multi-family uses, 3.6 percent, are concentrated around the CBD and near the University. The nearly 87 acres of trailers and trailer courts are generally found to the west and southwest of Missoula and in East Missoula.

Of the remaining land, 315 acres are in commercial use, nearly 500 acres are used by transportation, communication and utilities and 600 acres are occupied by manufacturing uses. Exact locations of these uses are found in Figure 5.

Finally, the 308 acres of land bounded by the Northern Pacific Railway on the north and west, by Rattlesnake Creek and by the Clark Fork River on the south contain the Missoula Central Business District. The two predominant uses here are streets and alleys, one-third of the total, and residential accounting for another 23 percent. Only 51 acres of the total are commercial land, found primarily along Broadway, Front and North Higgins Streets.

Zoning

The Missoula zoning ordinance, covering the area within City Limits, has only five separate classifications: "A," residential; "B," residential; "BC," restricted commercial; "C," commercial; and "D," industrial. In the first category, the minimum lot size is 5,400 square feet for a single-family dwelling at a density of 8.1 dwelling units per residential acre. Uses of "A" zoned land are limited to single-family dwellings, churches, libraries, schools and colleges, and parks and playgrounds.

Under "B" residential, the minimum lot size is 3,500 square feet at a density of 12.4 dwelling units per residential acre. Land zoned under "B" may be used for multi-family dwelling units, private clubs and any of the uses termed appropriate under "A" residential. The "BC" category may be used for either commercial or residential. If land zoned "BC" is in residential use, the restrictions listed under "B" apply.

In "C," commercially zoned land, any of the above uses are allowed up to a density of 174.2 dwelling units per residential acre. There are no restrictions on height, but

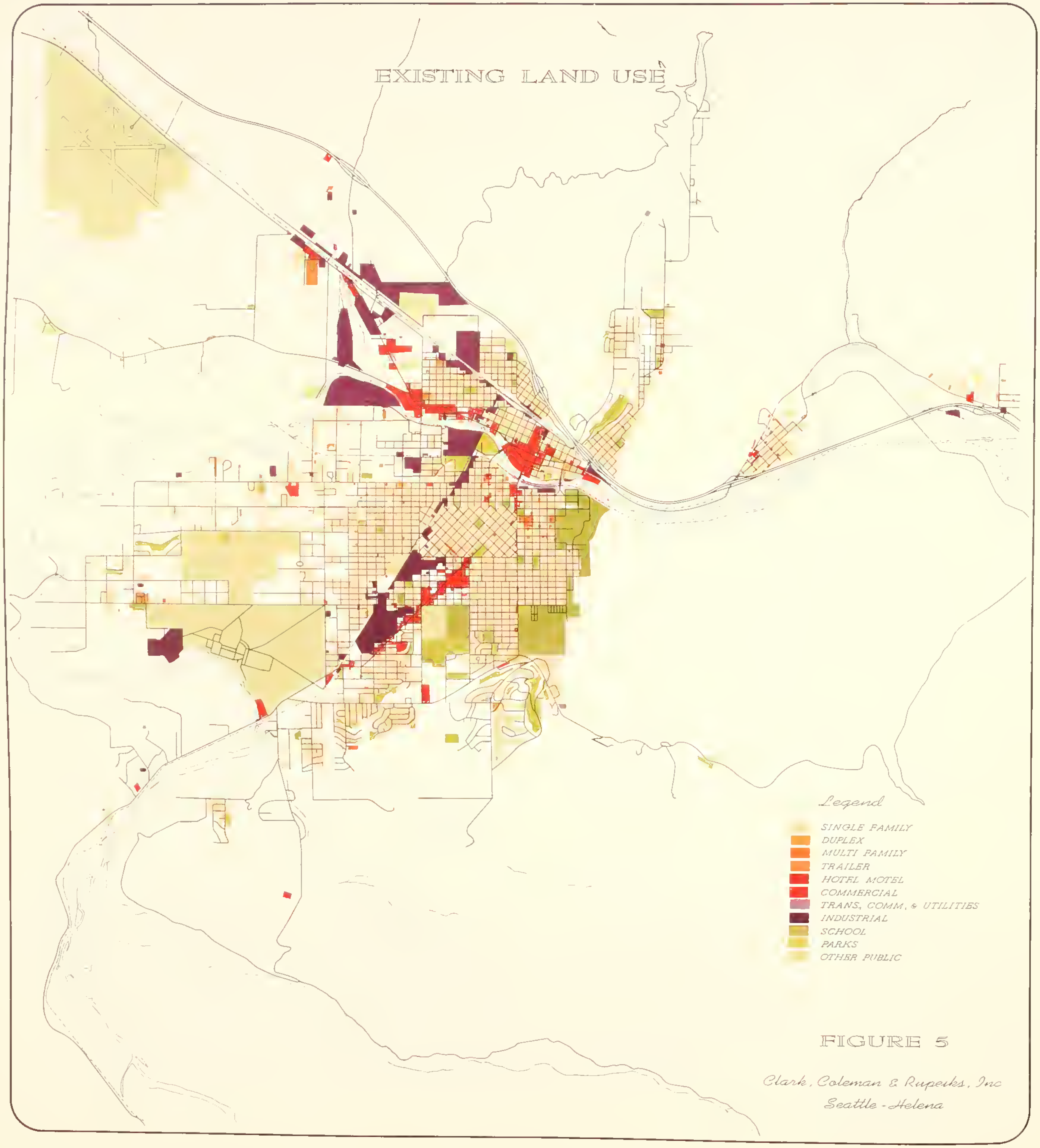

FIGURE 5

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residential use must conform to the prescribed standards of "B" residential. The minimum lot area per dwelling unit is 250 square feet for each unit in a multi-family structure. Any of the uses listed for the above categories are permissible. Some of the zoning categories and requirements will be reviewed during the coming year and some changes in the zoning ordinance are likely in order to realize greater compatability between the goals of the Comprehensive Plan and zoning in Missoula.

Land zoned, "D," industrial, has no restriction on structure height. Maximum density allowed is the same as under "C." Uses permitted are those permitted under "C," plus certain industry. Specific industrial uses not allowed are listed in Ordinance No. 1033 of the Missoula Zoning Code.

The amount of land zoned for each use in Missoula is shown in Table II-1, along with the amount zoned for each category in the CBD.

TABLE II-1

MISSOULA CITY AND CBD ZONING MEASUREMENTS

	City		CBD	
	Acres	Percent	Acres	Percent of Total
"A" residential	1,504.2	33.3	---	---
"B" residential	1,404.9	31.0	44.7	1.0
"C" commercial	829.4	18.3	138.7	3.1
"BC" restricted commercial	127.9	2.8	83.0	1.8
"D" industrial	638.0	14.1	59.4	1.3
Public Land	23.2	.5	---	---
TOTAL	4,527.6	100.0	325.8	7.2

Condition of Structures

The condition of structures survey, an exterior evaluation of age, condition and general maintenance, rated a total of 11,966 structures in the Planning Area in 1965. The ratings, ranking each structure with respect to other buildings in the community, gave an indication of the number of units, by type of use, that are in need of repair. The survey is useful in pinpointing general areas of decay and blight in need of repair or reconstruction. The results of the survey are shown in Table II-2 and pictured in Figure 6.

Over 24 percent of all structures rated were in "below average" condition. The gradually growing pockets of such structures can be seen in the Figure, especially noticeable in those areas between the Northern Pacific right-of-way and Interstate 90, and in the southwest section bordering on Johnson and Kamp Streets. Although rating standards may differ slightly, the 1960 U. S. Census of Housing was in substantial agreement five years previously, placing 20 percent of all residential structures in the "below average" category.

TABLE II-2

CONDITION OF STRUCTURES

Condition	Residential	Commercial	Industrial	Public	Number	Percent
Good	2,392	121	65	71	2,649	22.1
Above Average	2,259	185	46	65	2,555	21.3
Average	3,519	194	96	74	3,883	32.5
Below Average	2,133	126	58	60	2,377	19.9
Poor	449	24	17	12	502	4.2
TOTAL	10,752	650	282	282	11,966	100.0

CONDITION OF STRUCTURES

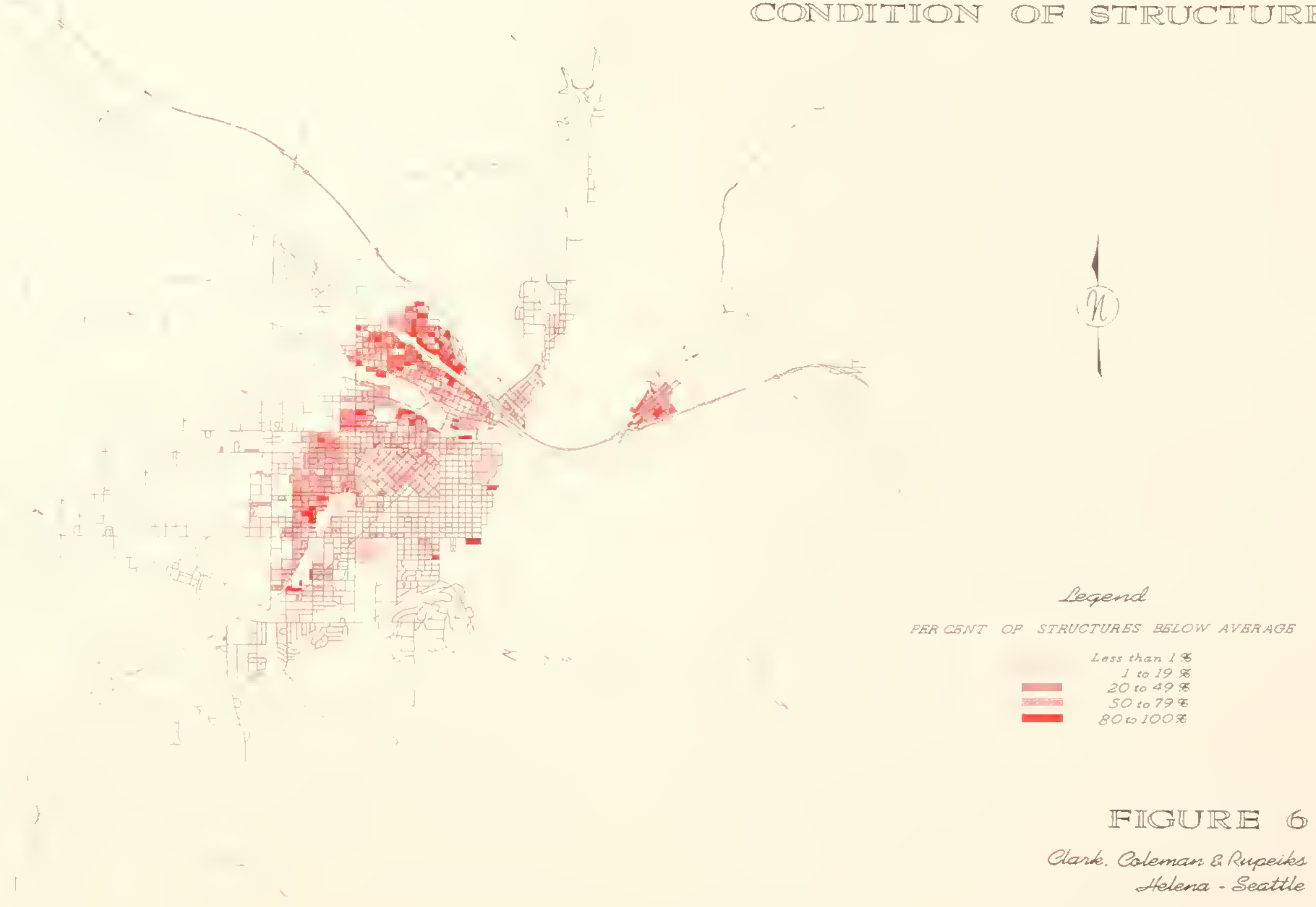

FIGURE 6

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Residential structures, comprising 90 percent of all structures rated, also showed about 24 percent in below average condition.

Building Permit Valuation

The rising value of building permits for new construction and remodeling issued by the City of Missoula reflects the level of construction activity in the City. Over the seven year period, 1960-1966, a total of 2,303 permits were issued with a total value of $28.7 million, averaging $12,462 per building permit. The average value of the 384 permits issued in 1960 was $4,810; by 1966, average value of the 223 permits granted was $36,166. The increase in valuation was most noticeable between 1964 and 1965, when average permit value rose from $11,586 to $22,679.

As might be expected, although the number of commercial building permits issued was smaller than residential, the value of the former was higher. The total number of commercial permits issued during the seven years was 560 with a total valuation $16.5 million, averaging $29,444 per permit. The value of the 53 commercial permits issued in 1960 averaged $15,864. By 1966, this sum had risen to an average of $62,330 for 89 issuances. After 1960, the number of commercial permits issued each year was around 85.

A total of 1,743 residential construction and remodeling permits were issued in the seven years. The total valuation was $12.2 million, averaging $7,006 per permit. The number of permits issued has decreased steadily from 332 in 1960, to 134 in 1966. The average permit valuation, however, has risen consistently from $3,080 in 1960, to $18,755 in 1966, with the greatest gain taking place between 1964 and 1965.

Projected Land Use Requirements by 1985.

The new residents anticipated for the Planning Area by 1985 will generate a demand for 6,900 new housing units in addition to the current inventory, for a total of 23,369 dwelling units by 1985. Apart from university housing, the total number of dwelling units needed is estimated at 19,000.

On the basis of existing, or 1965, residential density for all housing structure types in the Planning Area, five units per net acre, construction of the new units will require 1,366 acres in residential land. The additional acreage will bring the total amount in residential use to nearly 4,000 acres.

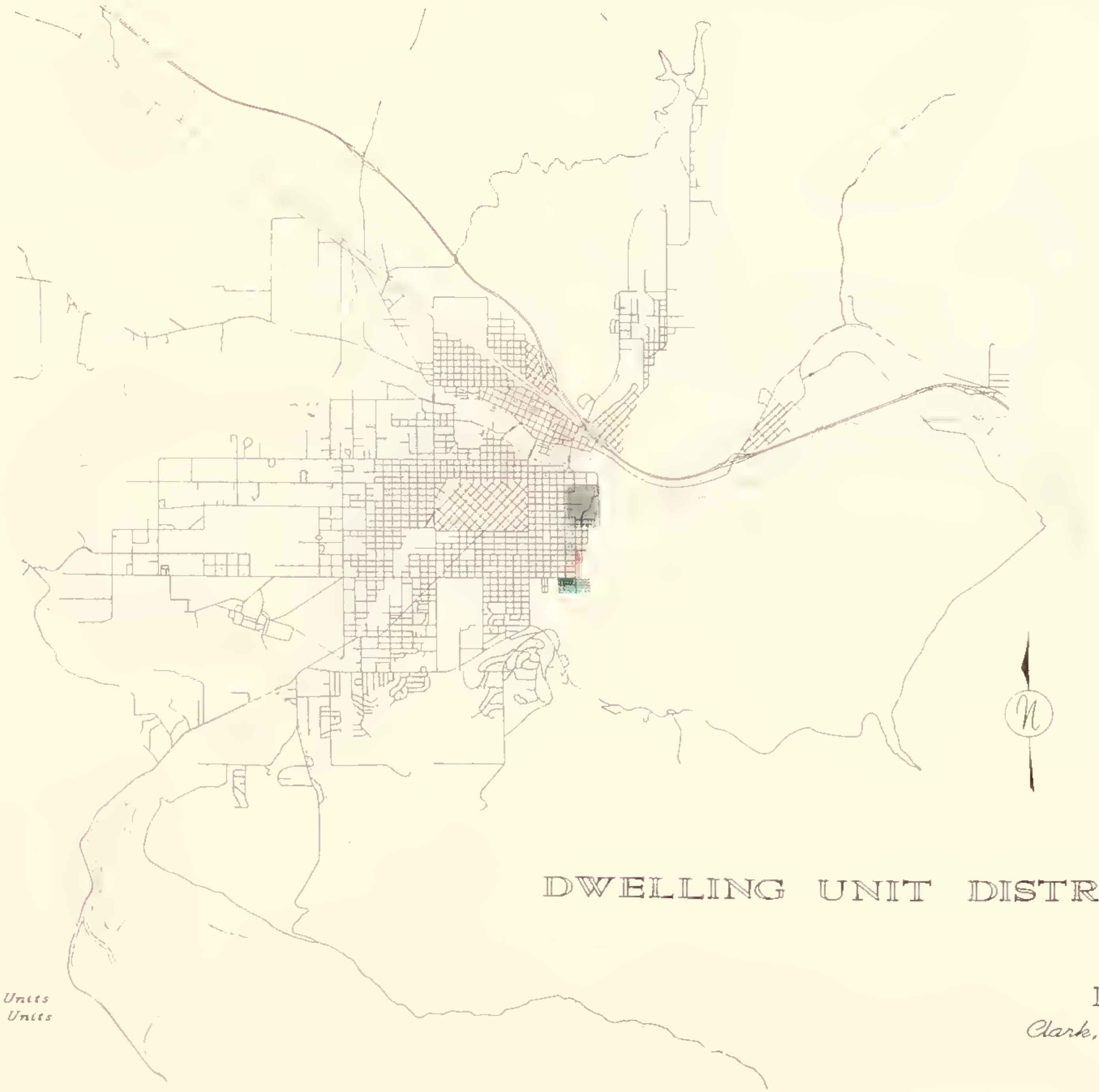
Single-family structures, occupying about 92 percent of total residential land at an average of 4.1 structures per acre, will need 1,260 new acres for a total of 3,670 acres by 1985. Duplex units, averaging 23.2 units an acre, are expected to need about 23 new acres for a total of 68 acres by 1985. Other residential uses, multi-family, hotels and motels, and mobile home spaces, are expected to increase by 27, 12, and 45 acres, respectively. Nearly 78 acres will be in multi-family, about 37 acres in hotels and motels and 132 acres in trailers and trailer courts by 1985.

To forecast distribution of the anticipated gains, the attractiveness of each of the 117 analyses zones was rated according to such factors as accessibility, water and sewer connections, availability of buildable land, the type of structures already contained and other factors. The "saturation" point, or terminal holding capacity, would act as a control on the number of persons, dwelling units and other uses that could be expected in each zone. Figure 7 gives the distribution of Planning Area dwelling units in 1965 and 1985. At 100 percent saturation, the jurisdictional area could theoretically sustain 65,470 such units. A five to ten percent vacancy factor should be applied to arrive at a more practical level of "saturation." The distribution of dwelling units by analyses zone and the anticipated 1985 total for each zone are given in Appendix B.

In order to determine the 1985 requirements for non-residential land uses, the number of employees working in a specific industry was divided into the number of acres known to be used by that industry. Based upon the anticipated increase in employment and upon the assumption that the average number of employees per acre would not change drastically in twenty years, the non-residential land use forecast for 1985 was made.

The amount of land taken up by retail stores, by finance, insurance and real estate offices, and by professional and business service outlets is forecast at 538 acres in 1985. This total, a twenty year increase of 222 acres, reflects the rapid growth expected in these uses.

In the category encompassing manufacturing, wholesaling and construction, a demand for 369 additional acres is expected, bringing the total in use to 939 acres by 1985. In addition to the 499 acres currently used by transportation, communication and utilities facilities, including railroad rights-of-way, another 257 acres will likely be needed for a total of 756 acres.



DWELLING UNIT DISTRIBUTION

Legend

☐ 1965 DWELLING UNITS
☐ 1985 DWELLING UNITS

NOTE □ Equals Four Dwelling Units
⊡ Equals Forty Dwelling Units

SCALE 0 1 2 3 4 5 6
Thousands of Feet

FIGURE 7

Clark, Coleman & Rupeiks, Inc
Helena - Seattle

The amount of land in all types of public use is expected to amount to nearly 5,000 acres by 1985, an increase of 1,875 acres over 1965. Included here, of course, are local, state and federal government land use increases, the gain in size anticipated for the University of Montana, and an increased number of schools, parks and other community facilities. This category, public use, will continue to consume the largest portion of developed land in the Planning Area. Detailed acreage requirements for schools, parks and the like will be discussed in the following chapter.

The required 1985 acreages for residential land by structure type and for non-residential land by use are summarized in Table II-3. Also given are 1965 totals and the expected twenty-year gains for each type of use.

TABLE II-3

FORECAST OF 1985 LAND USE (IN ACRES)

	1965	1965-1985 Increase	1985
Residential	2,619	1,366	3,985
Single-family	2,411	1,259	3,670
Duplex	45	23	68
Multi-family	51	27	78
Hotels, motels	25	12	37
Mobile homes, etc.	87	45	132
Non-Residential	4,657	2,723	7,380
Commercial	316	222	538
Manufacturing	600	369	969
Trans., Comm., Util.	499	257	756
Public (incl. schools)	3,242	1,875	5,117
TOTAL	7,276	4,089	11,365

LAND USE PLAN FOR THE PLANNING AREA

As an area changes from a clustered handful of people into a village, a town and, finally, a city, not only is more land needed but the uses of the land begin to show more diversification. Usually, a predictable pattern of use emerges. Uses shared by all the citizens - stores, offices and the like - group together in the center, ringed by houses at a high density which become sparsely distributed toward the perimeter. If industry arrives, a site on the waterfront or along rail and road access to the city is preferred.

Like thousands of other American cities, Missoula developed in this manner. Available land went to the highest bidder, with little thought given to the use of adjacent land, preservation of open areas and guarding against destruction of the scenic waterfront. From the situation as it existed in 1965, and from the estimates of land likely to be needed by 1985, the Land Use Plan for the Planning Area was evolved. Presented in succeeding paragraphs of this chapter and shown graphically in Figure 8, the Plan is, rather than a demand for sweeping and instantaneous changes, a series of proposals for efficient and compatible development of land in the Missoula Planning Area by 1985.

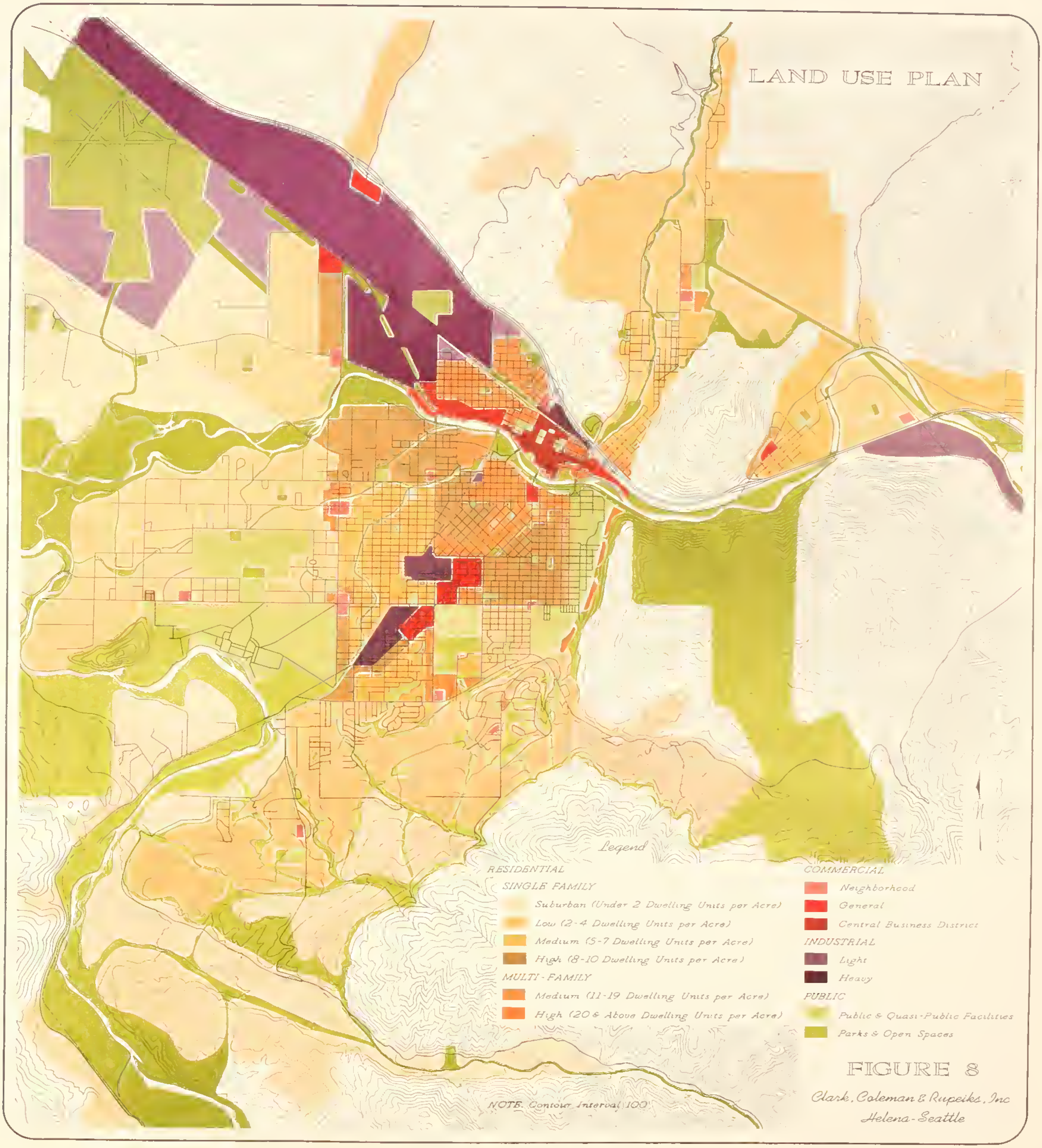
Residential Land

Land proposed for residential use is classified into two general categories: single-family and multi-family. The first is further divided into four classifications, according to the density of development. The second category is separated into two groups, again according to density.

Single-family Residential

High Density Single-family. This classification is defined as having from eight to ten single-family dwelling units per residential acre. The demand for such land is likely to occur in the more developed areas of a community that are older, generously served by City services and easily accessible. This use also serves as a transition zone from a less intensive to a more intensive use.

The Plan proposes that a large area immediately west of the University of Montana campus be designated high density single-family to preserve the high quality of residential development already found there in this density. The area is bounded by, approximately, one-half block west of Arthur, South, Bancroft, Blaine and Eddy. Another recommendation for this density is along the Northern Pacific's



LAND USE PLAN
Legend
RESIDENTIAL
SINGLE FAMILY
Suburban (Under 2 Dwelling Units per Acre)
Low (2-4 Dwelling Units per Acre)
Medium (5-7 Dwelling Units per Acre)
High (8-10 Dwelling Units per Acre)
MULTI-FAMILY
Medium (11-19 Dwelling Units per Acre)
High (20 & Above Dwelling Units per Acre)
COMMERCIAL
Neighborhood
General
Central Business District
INDUSTRIAL
Light
Heavy
PUBLIC
Public & Quasi-Public Facilities
Parks & Open Spaces
NOTE. Contour Interval 100'

FIGURE 8

Clark, Coleman & Rupeiks, Inc
Helena-Seattle

Bitterroot Branch line between 2nd Street S. and Russell Street on the western side of the route and in the area enclosed by 7th, Rollins and Harlem Streets on the eastern side. The area would be upgraded to a more intense single-family use and would serve as a transitional area between the proposed multi-family use along the heavily traveled arterials of Brooks and Stephens and the lower density residential areas to the west.

The entire area bounded generally by California Street, S. Third, Grove Street and the Clark Fork River is also suggested for this use because of its proximity to the CBD and major arterials and the existence of an elementary school.

Smaller high density areas are proposed for the stretch of land between Mullan Road and the Northern Pacific route along the proposed Highway 93 bypass, and along the western side of the business area in East Missoula. The first of these is suggested as a mobile home park area serving as a buffer between industrial and lower density single-family uses. Other areas of high density transition are proposed for the land fronting Brooks from about Mary Street south on the eastern side, and the nearby blocks ringed by Donald, Clark, Brooks and Reserve. One small parcel in the Target Range area, at the intersection of South and Clements, is included in the single-family high density recommendations as a mobile home park.

Medium Density Single-family. Land in medium residential density has from five to seven single-family dwelling units per acre. This type of development is likely to be newer than high density and somewhat further from the central business area. Other factors, such as City services and accessibility, are similar, but less comprehensive. Proposals of the Plan for this use encourage preservation of existing density and, in some cases, extension outward.

The Plan proposes medium density residential development for most of the land surrounded by S. Third, Russell, South and Reserve. This density is also recommended for the triangular area immediately south, bordered by South, Clark and Northern Pacific route, and also in the parcel created by 39th Street, Russell and U. S. 93. Smaller medium density areas are proposed along the intersections of Russell and Bancroft with S. W. Higgins.

Excepting the area previously designated high density, East Missoula is suggested for medium density development, as is the Milltown area on the eastern edge of the Planning Area. The new arterials planned for the northern side of both East Missoula and Milltown are expected to give impetus to residential development. The southern third of the Rattlesnake Area is also proposed for medium density single-family development.

Low Density Single-family. A neighborhood termed low density has from two to four dwelling units per residential acre. This intensity of development is generally found extending out from medium and high density areas and, naturally, is further from the central area. The homes are likely to be newer, accessibility is likely to be less ready, and utility connections, if not already in place, are probably planned for the near future. The Department of Health has dictated density limits because of sewage drainage problems on some of this land; topography has placed other restrictions. The spacious lot sizes and the view afforded by the difficult terrain, however, have lent a certain popularity to this type of development.

In the far northern Planning Area, Grant Creek is proposed for low density development because of the access provided by the recently completed Interstate 90. The same density is proposed for the Hellgate area, more specifically, that area bounded by the Chicago, Milwaukee & St. Paul Railroad and Mullan Road north to the Northern Pacific Railroad. The area is expected to develop at this density because of the access provided by the proposed "93" bypass, its closeness to industrial areas and the nearby elementary school.

The Target Range-Orchard Homes area is also proposed for low density development. A considerable network of new arterials, the "93" bypass, a new high school and elementary schools will give impetus to development.

New residential areas in the Rattlesnake, including Lincoln Hills, are also recommended for low density. Planned arterials are expected to give improved access to areas not previously served. Low density residential development will also be predominant in the Bandman Ranch properties near East Missoula.

The low density area bounded by Higgins, S. W. Higgins, Bancroft and South, noted in the Plan as bordering on the University's golf course site, is currently at maximum development in low density residential use. South of S. W. Higgins, low density is proposed for the Farviews area, for the Heights, for Meadow Hills and for the Cold Springs area. Topography in these areas affords developers use of view lots and, again, the proposed arterial network through these areas is expected to encourage development.

Suburban Density Single-family. This classification includes residential land with up to two dwelling units per acre, usually located on the far edge of the community. The level of services provided is either very low or non-existent and a higher density is improbable until the area comes within the City's jurisdiction and areas within the City are nearly saturated. Existing land developed at this density is generally used by small ranches and the like. The growth rate and a higher density depends for a large part on the provision of adequate utilities and facilities.

The small parcel of developable land in the northern part of the Planning Area termed Sawmill Gulch is suggested for suburban density, as is the land between the Clark Fork River and the Chicago, Milwaukee & St. Paul Railroad west to the edge of the Planning Area. This density is further proposed north of Mullan Road, just south of the Airport in the Hellgate Village area and west across the river from the Target Range area.

The land enclosed by Blue Mountain and the Clark Fork River and extending down along the river, including the Miller Creek area, is part of the land recommended for suburban density. The terrain effectively limits the outer edges of the area that will develop, as shown in the Plan, but this same difficult terrain provides a scenic environment and view for the isolated homes built on the periphery. The proposed arterial expansion in the Miller Creek area, especially that planned along the eastern edge of the developable land, will greatly improve access.

Further development at suburban densities is proposed for the rather extensive developable land in the Pattee Canyon area. An extension of the arterial along the eastern edge of the Miller Creek site will encircle the land usable for residential development in Pattee Canyon. The exact limits of the land suggested for suburban density by the Plan are shown in Figure 8.

Multi-family Residential

Medium Density Multi-family. This classification includes all residential structures housing more than one family from duplex units on up. The Plan suggests a density of from eleven to twenty dwelling units per residential acre. Such use is often found near the CBD, acting as a buffer along major arterials and neighborhood and community shopping centers. The simple facts of large demand for housing in locations convenient to business and shopping, and insufficient land to allow for single-family units create the situation making medium density multi-family residential land use a necessity. Such an area holds a definite appeal for that part of the population more interested in convenience than in yards and gardens, that is, young single people, young married couples without children and older citizens.

The Plan proposes that, north of the Clark Fork River, one block in depth on both sides of the VanBuren interchange, be designated as medium density multi-family to serve as a buffer for the less intense residential use to the north. Further up the Rattlesnake, in the northeast corner of the Brayton-30th Street N. intersection, are two other parcels recommended in this use near a proposed high school and neighborhood commercial development. In an effort to upgrade the areas and help satisfy the demand for multi-family housing near the CBD, the Whittier and Lowell neighborhoods are also suggested for this use.

South to the river, medium density multi-family is proposed in the site currently occupied by the Intermountain Lumber Company, except a small area in the southwest corner. West of the Northern Pacific's Bitterroot Branch to Myrtle and south to 6th Avenue S. W. is recommended for this use, as are the blocks between Orange and Brooks and one block in depth on both sides. The suggestion is proposed to upgrade the area from its current mixture of uses, to support the housing demands of the University and to serve as a buffer for the high density, single-family uses on either side. From the river south to Eddy between Gerald and Arthur, in the one-half block bordering Arthur south to South, medium density multi-family is also suggested.

The nine-block parcel between Middlesex and Bancroft north of the County High School is included in this category supporting demand of nearby commercial areas. The medium density proposed along Russell south from Josephine to 39th provides a buffer between highway-oriented commercial use and Spartan Park.

High Density Multi-family. This term is applied to land with over 20 dwelling units per residential acre. With the exception of CBD residential land, discussed in detail in a later chapter, the Plan proposes this use in only two areas. The first is along the western edge of the University at the foot of Mt. Sentinel and the use is, more specifically, student dormitory housing. A parcel of about five acres in the southeast corner of the 39th Street-Whitaker intersection in the Farviews area is currently in this use.

Commercial Land

Although the Central Business District in a City usually contains the largest concentration of its commercial facilities, any outward population growth generally creates a demand for convenient neighborhood facilities and for outlets along access routes to the CBD. Finally, shopping centers with some primary and secondary retail outlets on a smaller scale are introduced closer to the new residential developments.

The Land Use Plan for the CBD is given in Chapter V of this report. The second category of commercial land proposed by the Plan is "general" commercial; that is, located along a main thoroughfare and containing outlets with merchandise or services appealing to the whole population. Two of the major areas proposed by the Plan for commercial use, however, are on either side of the CBD. One of these is west of Madison, ringing Broadway for about three-fifths of a mile. The second is along both sides of Broadway from the eastern edge of the CBD to the City limits - the Eastgate Area. A third adjacent to the CBD is proposed for the six blocks fronting Urlin. South, the eight-block area beginning at the Clark Fork River and bounded by Myrtle and Gerald Streets is also encouraged for commercial use. The four areas are intended for occupancy by automotive sales, motels and hotels, restaurants and other highway-oriented businesses.

Moving down Brooks Avenue away from the CBD, a rather extensive commercial area is suggested between Mount and South, excepting the nine blocks between Kent and South and the eight blocks between Mount and North. Covering an area of about one block on both sides of Brooks between Russell and Agnes, is another proposed commercial use. Both of the above areas are recommended in an effort to limit commercial expansion in strip fashion along the arterial and to promote more intensive use of exising commercially used land.

Two additional commercial spaces, one in East Missoula along East Broadway between 2nd and 4th and the other at the proposed "93" bypass crossing of the Northern Pacific tracks, are suggested by the Plan. North along the bypass at the junction with Interstate 90, another commercial area is recommended.

A third designation for commercial land, "neighborhood" commercial, comes with the outward spread of population and offers necessary items like food, drugs and gasoline. This use generally locates near the limited population from which its customers will come. The neighborhood commercial centers proposed for the Planning Area, a total of ten, range from three to six acres depending upon the size of the area and population served.

The locations of the proposed centers, shown in Figure 8, are adjacent to community arterials to preclude residential disturbance by traffic generated. Ideally, the centers should provide convenient and attractive surroundings for patrons with adequate off-street parking and landscaping offering protection to adjacent residential neighborhoods.

Industrial Land

The transformation of a community from rural to urban usually means an ever increasing demand for land for industry. Industry is known to prefer sites either fronting the water or along major transportation routes, and with necessary utilities. Because of the unnavigable rivers, location on the waterfront is not necessary to industry in Missoula; location by railroad and highway routes is. Too, the express desire of the citizenry is a clean, open waterfront.

The City of Missoula's zoning ordinance precludes use of City land by most heavy industry. The Plan thus proposes only light industrial use - wholesaling and storage, newspaper publishing, transportation, communications and utilities, etc.-within the City. Three of these areas are along the Bitterroot Branch of the Northern Pacific route. The first is bounded by 2nd Street South, Walnut and 4th Street S. W. and is about four acres in size. The second is found on both sides of the railroad, enclosed by Regent, Harker, Grant and Mount Streets and covering approximately 35 acres. The third is the entire east side of the tracks between South and Brooks, excepting the four-block commercial area. The two remaining areas within the City limits proposed for light industry are the triangles formed by Lincoln and Cooley Streets and the Northern Pacific route, and by Rodgers and Scott Streets and Interstate 90.

Beyond the corporate limits, a large area is recommended for light industry south of Interstate 90, and Milltown, to the Clark Fork River. Both major railroad lines intersect the land.

The necessity for additional warehouse and storage facilities accompanying the expected increase in air traffic prompted the Plan proposal for light industrial use ringing the Missoula County Airport. This land, more specifically, extends from the airport south to the Chicago, Milwaukee & St. Paul route, along the southern edge of the airport and along the Northern Pacific tracks from the airport southeast for about one and one-half miles. Access to the acreage will be helped by the addition of arterials planned for the area.

The term "heavy industry" tends to create an image of endless acreage in unsightly gray buildings with black smoke stacks billowing smoke. It should be remembered, however, that modern industry considers landscaping an integral part of total design, and if older concerns are convinced of this need, large industrial areas can escape conformity with the old image. Excepting the parcel between Russell and the proposed "93" bypass, all heavy industrial land is proposed north of the Northern Pacific Railroad right-of-way. A small such area is proposed between Interstate 90, First Street North and Rose Street. Further west, from Scott Street between Interstate 90 and the Northern Pacific railroad to Missoula Cemetery is also suggested. Finally, from the cemetery northwest to the northern limit of the airport, all the land between the railroad and Interstate 90 is proposed for heavy industry.

Public Land

A perusal of Figure 8 immediately points to several extensive areas recommended for public use. The largest of these is Missoula County Airport. Expansion is proposed for the airport's major runway of 2,000 - 3,000 feet to the northwest to provide the length necessary for jets. On the south and southeast, additional landing clearance zones are recommended for safety purposes.

The Fort Missoula site and the University nursery are also recommended for retention in public use. Among the uses suggested for Fort Missoula, discussed in detail in Chapter III, are new fairgrounds, a sports center, the new community hospital, a parochial high school, a golf and country club, and, of course, the military headquarters for the Fort. The Plan recommends that the county shops be located on the county-owned public land west of the University Experimental Nursery.

The University of Montana, currently consuming a large section of public land, is recommended for extension from Arthur to the foot of Mt. Sentinel south to, and including, the land bordered by South and Higgins.

The site now used by the County Fairgrounds is proposed for retention in public use, occupied by the planned vocational school. Missoula County High School occupies the adjacent land and Hellgate High School, the blocks bounded by S. Sixth, Ronald, Connell and Higgins. Three other high schools are proposed for the Rattlesnake, for Target Range and, eventually, for Miller Creek. The locations of new elementary schools, discussed at length in Chapter III, are proposed for those areas likely to receive the brunt of the population increase.

The remaining public land is used by the three cemeteries, two skirting the City limits on the northwest and one along Mullan Road in the Hellgate area, and by the sewage treatment plant along the proposed "93" bypass, south of Mullan Road.

The Plan proposes that, where possible, neighborhood parks be located next to elementary schools and community parks in proximity to high schools for maximum economy and use. Two major parks are suggested, one south along the river in the Target Range area and the other in an area bounded by River, Reserve and Mullan Roads, and intersected by the Clark Fork River. Spartan Park, south of the fairgrounds and the County High School, is recommended for enlargement and intense development according to the comprehensive park plan already prepared for it.

The large open space areas shown in Figure 8 are Blue Mountain in the western Planning Area and the Forest Service State-owned land on the east, of which Mt. Sentinel is a part. Green belts are proposed along all of Missoula's waterways and as buffers to separate incompatible usage. The stream beds threading through the southern part of the Planning Area and in Lincoln Hills and the ridges created by the terrain are included in the open space proposal. Open space buffers are also shown separating residential development, such as on the eastern edge of the University, from the foothills.

Summary

The Land Use Plan for Missoula, as depicted in Figure 8, is an attempt to group similar uses, to provide orderly transition from one type of use to another and to allow the sufficient space for each use that has been estimated for the future. The Plan has a goal of orderly development within the expressed wishes of the citizens for their community.

CHAPTER 3

COMMUNITY FACILITIES

Inherent in the election of local officials and the payment of taxes is the assumption of the voter/taxpayer that certain services will be rendered, among them the provision of schools and recreational facilities and the upkeep of the community. The larger and more urban the area, the more varied are the services expected. The Missoula Planning Area, exhibiting an increased number of urban qualities with each passing year, is an ideal example of this trend. The Community Facilities Plan, presented in this chapter, is a long-range plan for the development of community services in Missoula based upon the projected 1985 population, upon the standards evolved through experience in other urban areas throughout the nation and upon the desires for their community expressed by Planning Area residents. The existing community facilities are shown in Figure 9.

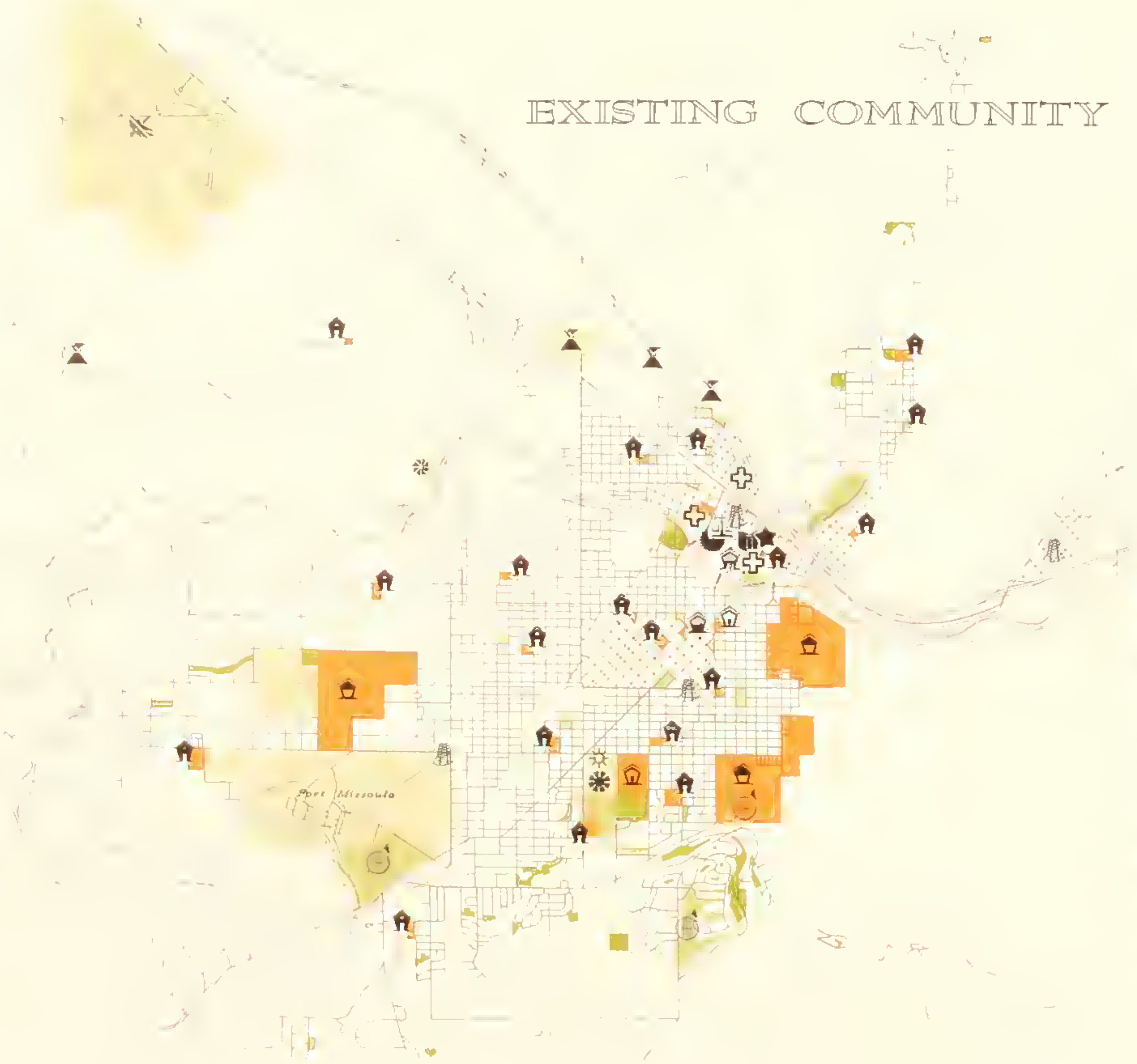
The Plan for Schools in the Missoula Planning Area

The one-room rural school of the past, with students of all ages gathering from miles around, is quite unrecognizable today. Although the school has retained its position as a social as well as an education center, the single room has mushroomed into many, separated according to grade. The matter of distance to school has made location important, and site and structure size have become issues of state concern. The sizable portion of the tax dollar going for support of education has prompted both public acceptance of standards for schools and, more importantly, expectancy on the part of the public that a level of service meeting these standards will be provided.

The Missoula Planning Area, containing five elementary districts in grades one through eight and a county-wide high school system with grades nine through twelve, is typical of the growth occurring nationally. Fortunately, the people of the Missoula Planning Area recognized the need early and can be proud of their excellent educational systems. Today over 10,000 students are enrolled in 22 elementary and two high schools. This is an increase of approximately 5,000 students and 11 elementaries and one high school since 1950. Yet, the growth continues. By the fall of 1967, thirty-nine new classrooms will be added to the elementary inventory. Two new schools and additions to two others will share this added growth.

Much of this new growth has been the result of the flight to the suburbs in the last few years. During the last few

EXISTING COMMUNITY FACILITIES



Legend

SCHOOLS 🟧

Elementary School Service Area Boundary

Elementary School District Boundary

- Elementary
- Secondary
- Parochial
- University of Montana

PARKS & OPEN SPACES

- Improved Parks
- Unimproved Parks
- Golf Course

OTHER PUBLIC

- Airport
- Cemetery
- City Hall
- County Shops
- Court House
- Treatment Plant
- Federal Building
- Fire Station
- Hospital
- Library
- Missoula County Fairgrounds

Survey Year 1965

FIGURE 9

Clark, Coleman & Rupeiks, Inc
Helena - Seattle

years hundreds of families with as many or more school age children settled in the outlying areas placing an unprecedented demand on existing facilities. The result was District One building schools at the rate of one school every year and a half since 1950. Since 1956, new schools have also been constructed at Bonner, DeSmet, Hellgate and Target Range.

With an average of 350 new students entering the Planning Area schools each year, little time has been available to prepare a comprehensive locational study for new sites. Now, thanks to an active planning program, such a study has been prepared.

School Facilities Demand

The Missoula Planning Area encompasses approximately 104 square miles of land. Within its boundaries in 1965 were an estimated 46,430 people. Of this amount, 23 percent, or 10,216 pupils, were enrolled in 22 public elementary and two public high schools; grades one through eight enrolled 7,203 pupils and grades nine through twelve, 3,013 pupils. Of this amount, approximately 500 students came from outside the Planning Area, the majority of which were high school and Bonner Elementary students.

Population estimates have indicated a total Planning Area capacity of 202,300 persons, assuming the proportion of single and multi-family units remains reasonably constant. Population forecasts and dwelling unit allocations for 1985 indicate a total Planning Area population of 73,500. Within this area will be an estimated 17,800 public school age children, approximately 24 percent of the 1985 projected population total.

Method

To determine the demand for 1985 school facility requirements, all district boundary lines were grouped as one or equal to the entire Planning Area. The demand was then based on population projections and dwelling unit allocations prepared at the zonal level published in Appendix B. From the zones the school age group was extracted out of the total population and allocated to the various elementary service areas. As a measuring device, the 1965 elementary school service area boundaries (Figure 2) were placed over the 1985 dwelling unit allocations from which the 1985 school-age group was extracted. The result was a comparison of 1965 and 1985 enrollments showing 1985 classroom needs and enrollment using the density standards of 28 pupils per room at the elementary level and 25 pupils per room at the secondary level. These density standards have been adopted by the community and are shown in Appendix C.

Table III-1 lists by 1965 service areas, 1965 enrollment and classrooms, 1985 estimated enrollment and classroom demand, and the resulting deficiencies or surplus. Applying the school density standards (28 pupils per room in grades one through eight; and 25 pupils per room in grades nine through twelve), the classroom deficiencies can be converted into school plant demand.

From Table III-1, approximately 407 elementary classrooms and 85 additional acres, Table III-2, will be needed by 1985. This will require ten new elementary schools and additions to seven others. At the high school level, grades nine through twelve, enrollment projections indicate a 1985 demand for 257 classrooms or five high schools and 48 additional acres, Table III-2.

The distribution of the new elementaries will include one each in the Target Range and Bonner Districts, two in Hellgate and the remaining six within District One. The three new high schools, all in District One, should be located near Ft. Missoula in the Rattlesnake Creek area and south of 39th Street between that street and Miller Creek.

Because of the complexities of having several school districts within the Planning Area, future school plant locations were based not only on the individual district needs, but also in relation to service areas of neighboring schools and districts. School plants, in essence, were located with an eye toward maximum economies through elimination of facility duplication and inefficiencies. Generally, these economies are best achieved through consolidation under one administration.

There are always certain hazards and significant limitations in any study relating residential growth to school facilities demand, particularly over an extended period of time. The density of a neighborhood, i.e., persons per dwelling unit, has a definite effect on age composition. From now to about ten years, a neighborhood can produce an average of between 0.9 and 1.1 pupils per dwelling. Good examples of this are the Lewis and Clark and Cold Springs School service areas which generate 1.0 and 1.2 pupils per dwelling unit from recently constructed and occupied homes. By the time a neighborhood has existed 25 years, the pupil-per-dwelling ratio will have fallen to approximately 0.3 to 0.5, such as the Whittier and Lowell school service areas. Thus, for a

TABLE III-1

MISSOULA PLANNING AREA SCHOOL FACILITIES DEMAND, 1985

School Service Area	1965		1985		Surplus or Deficiency
	Pupils	Rooms	Pupils	Rooms	
Bonner	297	11	451	16	- 5
Central	280	11	315	11	0
Cold Springs[a]	460	14	1,264	45	+31
DeSmet[a]	28	2	5	1	0
Dickinson	282	11	556	20	- 9
Franklin	546	17	690	25	- 8
Hawthorne	295	10	815	29	-19
Hellgate	134	8	548	20	-12
Jefferson	340	12	521	19	- 7
Johnson[b]	75	3	0	0	0
Lewis and Clark	521	18	1,258	45	-27
Lincoln[b]	105	5	0	0	0
Lowell	374	16	356	13	+ 3
Paxson	455	19	468	17	+ 2
Prescott	209	8	178	6	+ 2
Rattlesnake	328	14	795	28	-14
Roosevelt	477	17	380	14	+ 3
Russell	554	18	800	29	-11
Target Range	288	12	920	33	-21
Washington	341	13	214	8	+ 5
Whittier	391	15	318	11	+ 4
Willard	423	16	541	19	- 3
TOTAL	7,203	270	11,393	407	-86
Hellgate High	1,635	59)	6,421	257	-139
Sentinel High	1,601	59)			

[a] 1985 enrollment will come from outside Planning Area.
[b] Should be abandoned.

TABLE III-2

MISSOULA PLANNING AREA PROPOSED SCHOOL LOCATIONS

Type of School		1985 Site Requirements
Elementary	Bandman Ranch	8
Elementary	Mullan Road (East)	9
Elementary	Mullan Road (West)	6
Elementary	Clements Road	10
Elementary	1 Mile East Cold Springs School	9
Elementary	C. S. Porter (under construction)	9
Elementary	Meadow Hill (under construction)	9
Elementary	Farviews	9
Elementary	Upper Rattlesnake	9
Elementary	Miller Creek[a]	6
Elementary	Spurgin Road	7
Total		85 Acres
Secondary	South Avenue - across from Ft. Missoula	16
Secondary	Rattlesnake	16
Secondary	Miller Creek - Cold Springs	16
GRAND TOTAL		133 Acres

[a] Optional site - acreage not included in total.

residential square mile the school population may range from a high of 2,500 early in the cycle to as low as 630 at maturity. Other problems, too, can further complicate matters with such intangibles as regenerated popularity of older neighborhoods with young families, unforeseen nonresidential renewal, urban renewal and others.

Existing Elementary School Districts

The survey of existing school facilities was carried out in the fall of 1965. Data was collected on each school plant in the Planning Area. The data was on site size, number of rooms and pupils, year constructed and additions, equipment and other data. These data were then compared to the generally accepted standards adopted by the school subcommittee of the Missoula City-County Planning Board (see Appendix C) and are presented below for each of the five elementary districts and the county-wide high school system. Included, by each district and the individual school service areas, are the 1985 enrollments and classroom demands.

Bonner District

Although the existing school is located outside, a considerable portion of its service area lies within the Planning Area. Evidence of this shows in the 1965 enrollment figures when better than 60 students were enrolled at the Bonner School while residing in the Area.

The Bonner Plant was built in 1956 on 4.8 acres, of which 3.8 acres are used as playground area. An adjacent five acre parcel owned by a neighboring wood products firm is also used for playground area. The building contains eleven classrooms with a 1965 enrollment of 297 students, averaging 27.0 pupils per room. At present enrollment the site is deficient by 3.2 acres.

At 28 pupils per room, a total of 16.1 elementary classrooms will be needed by 1985 for the anticipated 450 pupils residing in that portion of the Planning Area served by the Bonner School. The Plan proposes adding five rooms to the present Bonner School for a 16 room total. Additionally, a new site should be acquired on the Bandman Ranch property for the construction of a second school. This school will need 11 classrooms by 1985. Currently, the Bandman Ranch property is being considered for a large residential development housing upwards of 4,000 persons at capacity. Preliminary plans show an area set aside for an elementary school.

DeSmet Elementary School District

Serving the upper Butler Creek area, the DeSmet School District just reaches into the Planning Area on the northwest corner. At the time of the survey, DeSmet pupils were still attending the old school constructed in 1896. However, since the fall of 1966, the DeSmet pupils have been attending a new four-room school approximately 1/4 mile north of the old site. Enrollment at the new plant is 28 pupils through the first eight grades. The new school sits on a two-acre site with ample room for expansion.

Projections for 1985 show no increase in enrollment from the Planning Area portion of the DeSmet School District. This area is expected to expand into industrial uses. DeSmet's enrollment increase will come from those areas outside of the Planning Area.

Hellgate School District

The Hellgate School District serves an area from Grant Creek on the north, south to the Clark Fork River, and west along Mullan Road. Much of the area, particularly along Grant Creek and Mullan Road, is farmland; however, a considerable amount of industrial growth is now occurring along the Northern Pacific right-of-way and Highway 10 West.

The 1965 survey showed an enrollment of 134 students in eight classrooms housed in two structures. One structure, constructed in 1917, contains two classrooms. The remaining six rooms were added in 1957 and 1962. The present site of two acres is deficient by four acres. The 1965 pupil-per-classroom density is only 16.7.

Projections to 1985 show an expected 550 pupils residing in the Hellgate service area, the equivalent of 19.6 classrooms. This will require an additional twelve rooms by 1985. Before these 12 rooms are added, however, another factor should be considered. The location of the school, directly in line with the main runway of the Missoula County Airport, means that planes landing and taking off pass only a few hundred feet above the school. Future jet traffic will require a 2,000 to 3,000 foot main runway extension, most likely to the northwest. Additionally, air traffic at the Missoula airport is expected to triple in volume by 1985, causing an ever increasing hazard and annoyance to the Hellgate School. Because the school lies in the direct approach and take-off patterns of the airport, the Plan suggests relocation of the school to a new site about one-half mile southwest of the present school. The new plant should contain the standard 16 classrooms and a site size of nine acres. Based upon the 19.6 classroom demand expected for 1985, a second new school should be considered at that time. A suggested location is west on Mullan Road, just inside the Planning Area boundary.

Target Range Elementary School District

The Target Range Elementary School District serves much of the area south of the Clark Fork River and west of 33rd Avenue. The survey showed in 1965 an enrollment of 288 pupils in 12 classrooms. The 12 classrooms are in two structures, one containing two rooms constructed in 1907, and the other, ten rooms built in 1957. The present site of 25.0 acres more than meets 1965 site standards of nine acres. The 1965 pupil-per-classroom density is 24.0.

Approximately 920 students will reside within the Target Range District by 1985. This will require 21 additional classrooms. To accommodate this growth, four rooms should be added to the Target Range School, and the remaining 17 classrooms of pupils should be allocated to a new school recommended on Clements Road.

Missoula Elementary School District

In 1965, District 1 had 18 public elementary schools operating. The enrollment total was 6,460 pupils in 237 classrooms for a pupil-per-classroom average of 27.3, just under the recommended load of 28.0.

Projections to 1985 for District 1 show an expected enrollment of 9,475 pupils, an increase of 47.0 percent. This will require 108 additional classrooms, the equivalent of seven new 16-room schools. Current school building programs will alleviate the growth problem temporarily with the addition of 39 new classrooms including the new C. S. Porter and Meadow Hill Schools. Much of the expected future growth will occur in the Farviews, Meadow Hill and Miller Creek areas. In addition, new schools can be expected in the Orchard Homes, the Rattlesnake and East Missoula areas. The Plan also anticipates the eventual closure of Central, Johnson Annex and the Lincoln School.

Central Elementary School

The Central School was built in 1935 on 1.4 acres of which one acre is used for a playground. The building contains 11 classrooms with a 1965 enrollment of 280 or a pupil-per-classroom ratio of 25.5.

Approximately 190 students are bussed daily from East Missoula to the Central, Rattlesnake and Prescott Schools.

The majority of these attend Central. Central's remaining students, about 120, all live in and around Missoula's Central Business District. Projections to 1985 of the Central School Service Area show a decrease in pupils from the downtown to an equivalent of four classrooms. Conversely, an increase of 7.2 rooms is expected in East Missoula. Thus, the Plan recommends that the Central School be abandoned, the site sold, and those students from the downtown area attend Lowell and Prescott schools. The East Missoula students will be served by a new elementary.

Cold Springs Elementary School

The Cold Springs plant, built in 1930 with additions in 1958 and 1962, contains 14 classrooms on 6.1 acres of land. Playground area amounts to five acres. Enrollment in 1965 was 460, averaging 32.1 pupils per room. At present enrollment numbers, the site is deficient by 3.9 acres.

By 1985, 1,265 pupils are anticipated in the present service area. This will require approximately 32 additional classrooms at the 28.0 pupils-per-room standard. The Plan recommends two additional classrooms to Cold Springs and two new schools of 15 classrooms each. Meadow Hill, presently under construction, will serve as one of two new elementaries. The Plan shows two sites for the second new elementary, dependent upon the rate of development in those areas. One, owned by District 1, is in the Miller Creek area; the second, favored by the Plan because it is likely to be the center of more intense development, is about one mile east of the Meadow Hill School. The Miller Creek area will experience growth, too, but it will probably be after 1985 that the area can support a 16-room school.

Dickinson Elementary School

Originally constructed in 1960, Dickinson's 11 classrooms are being expanded to 19 with an eight-room addition. Enrollment in 1965 was 282, averaging 20.0 pupils per room on a site of 4.6 acres. The site contains 3.6 acres in playground space and is 3.4 acres below recommended site standards.

By 1985 the present Dickinson service area can expect 555 pupils, the equivalent to 20 classrooms. One additional classroom to Dickinson would serve the 1985 enrollment.

Franklin Elementary Service Area

The Franklin School, containing 17 classrooms, was originally constructed in 1916 with later additions in 1930, 1939 and 1957. The site contains 2.5 acres of which two acres are used for playground space. The 1965 enrollment was 546, averaging 32.2 pupils per room. For the pupil number the site is grossly inadequate, fully 7.5 acres under site standards.

Population projections for the present service area indicate approximately 690, or a 24.6 classroom demand. To compensate for the expected increase, the service area should be realigned for the surplus of students to attend the new C. S. Porter School.

Hawthorne Elementary School

The Hawthorne School was built in 1910, with a four-room addition in 1953. The school now contains ten classrooms on a site of 4.7 acres, of which 3.6 acres are used for playground. The 1965 enrollment of 295 averaged 29.5 pupils per room. The site size at present enrollment is deficient by 3.3 acres.

Within the present attendance boundary, an estimated 815 students are anticipated by 1985, requiring 29.1 classrooms. Two solutions are possible. One would be to add six rooms to Hawthorne and allocate the 13-room excess to the Porter School for a 24 room total comparable to Lewis & Clark. The second is to add five rooms each to Porter and Hawthorne and to construct a new school of eight rooms located on Spurgin Road. This solution would maintain 16 room capacities at Hawthorne and Porter and necessitate a third school of eight classrooms by 1985. The Plan recommends the latter in view of continued enrollment increase expected in this area beyond 1985.

Jefferson Elementary School

Jefferson Elementary was built in 1951 with an addition in 1953 and now contains 12 classrooms on 5.2 acres. Playground area measures 4.3 acres. The 1965 enrollment of 340 averages 28.4 pupils per room. At present enrollment, the site is deficient by 2.8 acres.

Applying present school boundaries to anticipated development shows 520 pupils by 1985; requiring 18.6 classrooms. By 1985, approximately three classrooms of students will reside east of Russell Street yet in the present service area of Jefferson. These students should attend the new Porter School, reducing the 1985 classroom demand at Jefferson to 16 rooms. The Plan recommends four rooms be added for a total of 16 rooms at Jefferson. The balance of the 18.6 room demand will attend C. S. Porter.

Lewis and Clark Elementary School

The 18 classroom school was built in 1955 on a 9.3 acre site. The playground site provides eight acres of space. The 1965 enrollment of 521 pupils averages 28.2 pupils per room. A current building project is underway to add six classrooms for a 24-room total. With the additional capacity, the site will be 2.7 acres deficient.

By 1985 enrollment forecasts estimate approximately 1260 pupils within the present service area, requiring 45 classrooms. The Plan recommends realighment of service area boundaries with seven of the 45 room total to the Washington School, 24 rooms to Lewis and Clark with its new capacity and the remaining 14 rooms to a proposed school on the slope south of Lewis and Clark by 1985.

Lincoln Elementary School

Built in 1911 on a 1.5 acre site, the Lincoln School contains five classrooms with an enrollment of 105. The classroom density averages only 21.0 pupils, but the rooms are considerably smaller than present standards. The enrollment is 4th grade pupils only who are bussed from other areas of the district. The Plan proposes abandoning the site and converting the 1.5 acre site into a neighborhood park/playground. The 4th grade pupils can then return to their respective home area where new additions and/or facilities will house them.

Lowell Elementary School

The 16-room school constructed in 1909 has had two major additions since, in 1939 and 1960. The site contains 2.2 acres of which 1.1 is used for playground space. The 1965 enrollment showed 374 pupils for a density of 23.6 pupils per room.

The 1985 enrollment forecasts show a demand for 13 rooms or 356 pupils. However, if the Central School is abandoned, the equivalent of three classrooms of pupils from the CBD area are proposed to attend Lowell. Based on a standard of 28 pupils per room, the 16 classrooms would be used to capacity. Considering the age of the Lowell School and its sub-standard condition, replacement of the older structure should be considered. A site deficiency of 6.8 acres now exists at Lowell. Because of the small site and high acquisition costs in a heavily-built upon area, it may be more economical to consider constructing a two-story addition, thereby utilizing less ground area and keeping acquisition costs at a minimum. Regardless of the structure condition, a school of 16 rooms will be needed in this area by 1985.

Prescott Elementary School

The Prescott School was constructed in 1950 on 2.5 acres and contains eight classrooms. The playground area is 2.2 acres, or 4.5 acres below the suggested minimums. The 1965 enrollment was 209 pupils for a density of 26.1 pupils per room. The 1985 enrollment projections show a decrease to 178 pupils. At a standard of 28 pupils per room only 6.3 rooms will be needed. No change is recommended.

Paxson Elementary School

Built in 1922 and the Annex in 1948, the plant contains 19 classrooms on a site of 2.1 acres. The playground area amounts to only 1.8 acres, with a total site deficiency of 7.9 acres. The 1965 enrollment was 455 pupils, for a density of 24.0 pupils per room. The 1985 enrollment projections show a minimal change from 455 to 468 pupils. At a standard of 28 pupils per room only 17 rooms will be needed. No change is recommended.

Rattlesnake Elementary School

One of the newest schools in the system, the plant was constructed in 1960. Containing 14 classrooms with a 1965 enrollment of 328, the school has a density of 27.4 pupils per room on a seven acre site. At existing enrollment the site is one acre deficient. The 1985 enrollment expected for the present service area could produce 795 pupils requiring 14 additional classrooms to meet anticipated needs. The Plan proposes adding two classrooms to the present plant and a second school constructed near the new growth expected by 1985.

Roosevelt Elementary School

The Roosevelt Elementary School built in 1953 on 1.4 acres contains 17 classrooms. The playground area, one acre, is 8.6 acres below the suggested minimums for the 1965 enrollment of 372 pupils. The average pupil-per-room density was 28.1. The 1985 enrollment forecast totals 370 pupils, a decrease of approximately 100 students. The decrease will be attributable to an increase in multi-family units, characteristically known for their low pupil-per-dwelling unit ratio. The 370 pupils will demand approximately 13 classrooms, four below the present total. The Plan recommends realignment of the attendance boundary to accommodate the three to four classroom excess at the Willard School.

Russell Elementary School

The Russell School site contains 18 classrooms on a six acre site. The 1965 enrollment was 554 pupils averaging 30.4 pupils per room. Based on suggested site standards, a total site of eleven acres should be available to meet enrollment size minimums, or an increase of five acres. The 1985 enrollment projections estimate 800 students for the present service area, the equivalent of 28.6 classrooms. The Plan recommends that the Russell School remain at the 18 room capacity. The remaining 10-11 classrooms of pupils will be served by a new school proposed for location immediately south and on the slope area from Russell.

Washington Elementary School

The 4.6 acre Washington School site contains 13 classrooms and 3.4 acres of playground space. The 1965 enrollment was 341 pupils, averaging 26.3 per classroom. The site is deficient by 3.4 acres. The 1985 enrollment estimate forecasts only 215 pupils, a decrease of over 125 pupils. This decrease in enrollment will give the school a five room surplus. By realigning the 1985 attendance boundaries and including some of the 1985 overload at Lewis and Clark, the Washington School can be operated at capacity.

Whittier Elementary School

The Whittier School 1965 enrollment was 391 pupils, averaging 26.1 pupils per room. The Whittier Plant was built in 1922 on 1.4 acres, contains 15 classrooms and provides 1.1 acres of playground. According to suggested site standards, a total site of eight acres should be available to meet enrollment size minimums, or an increase of 6.6 acres. The 1985 enrollment projection estimates 320 students for the present service area. The decrease in students will give Whittier a surplus of three rooms. No changes are recommended.

Willard Elementary School

The Willard School was built in 1922 on 1.5 acres. The structure contains 16 classrooms with only 1.2 acres of playground use. The 1965 enrollment was 423 with an average classroom density of 26.7 pupils per room. The present site is 7.8 acres deficient, according to recommended standards.

By 1985, the present service area is expected to contain 540 pupils, the equivalent of 19 classrooms. It is recommended that by 1985 the Willard service area boundary be realigned to allow the three classroom excess to attend Roosevelt.

Existing High School Facilities

High schools in the Planning Area operate under a County-wide high school system serving grades 9-12. Within the boundaries of the Planning Area are two public high schools, Hellgate and Sentinel. The Hellgate Plant was built in 1908 with additions in 1920, 1931, 1932, 1942 and 1965. The school contains 59 classrooms with a density of 27.7 pupils per room on a site of three acres. Enrollment in 1965 was 1,635 pupils. Playfield area is virtually nonexistent. The site at existing enrollment levels is 13.0 acres below suggested minimums.

The Sentinel School, newer of the two, was built in 1956 with a later addition in 1965. The plant contains 59 classrooms with a density of 26.5 pupils per room on a site of 52 acres. The site at existing enrollment levels is 36 acres above suggested minimums. Enrollment in 1965 was 1,601 pupils.

A 1985 enrollment of 6,421 pupils is estimated for the present service area, the equivalent of 139 new classrooms, or two new schools of 60 rooms each and the beginnings of a third. Caution, however, should be exercised as the present service area includes students outside the Planning Area. These students number nearly 300 and their number remains at 300 in the 1985 projections. No projections were made for those students residing outside the Planning Area. If any increase does occur by 1985, that increase will have to be added to the above total of 6,421 pupils.

Locational studies show a need for high school facilities near Fort Missoula and in the Rattlesnake Creek area. A third new facility should be underway by 1985 and its location should be south of 39th Street toward Miller Creek. Each new school should contain 60 classrooms, have a minimum site size of 16 acres and a maximum enrollment of 1,500 pupils.

Schools Plan

School development will continue to have an important role in the shaping and development of the Missoula Planning Area. The Community Facilities Plan, Figure 10, shows the existing location of the 22 primary and two secondary schools. The Plan shows the optimum location of ten new primary schools, additions to seven others, and three new high schools.

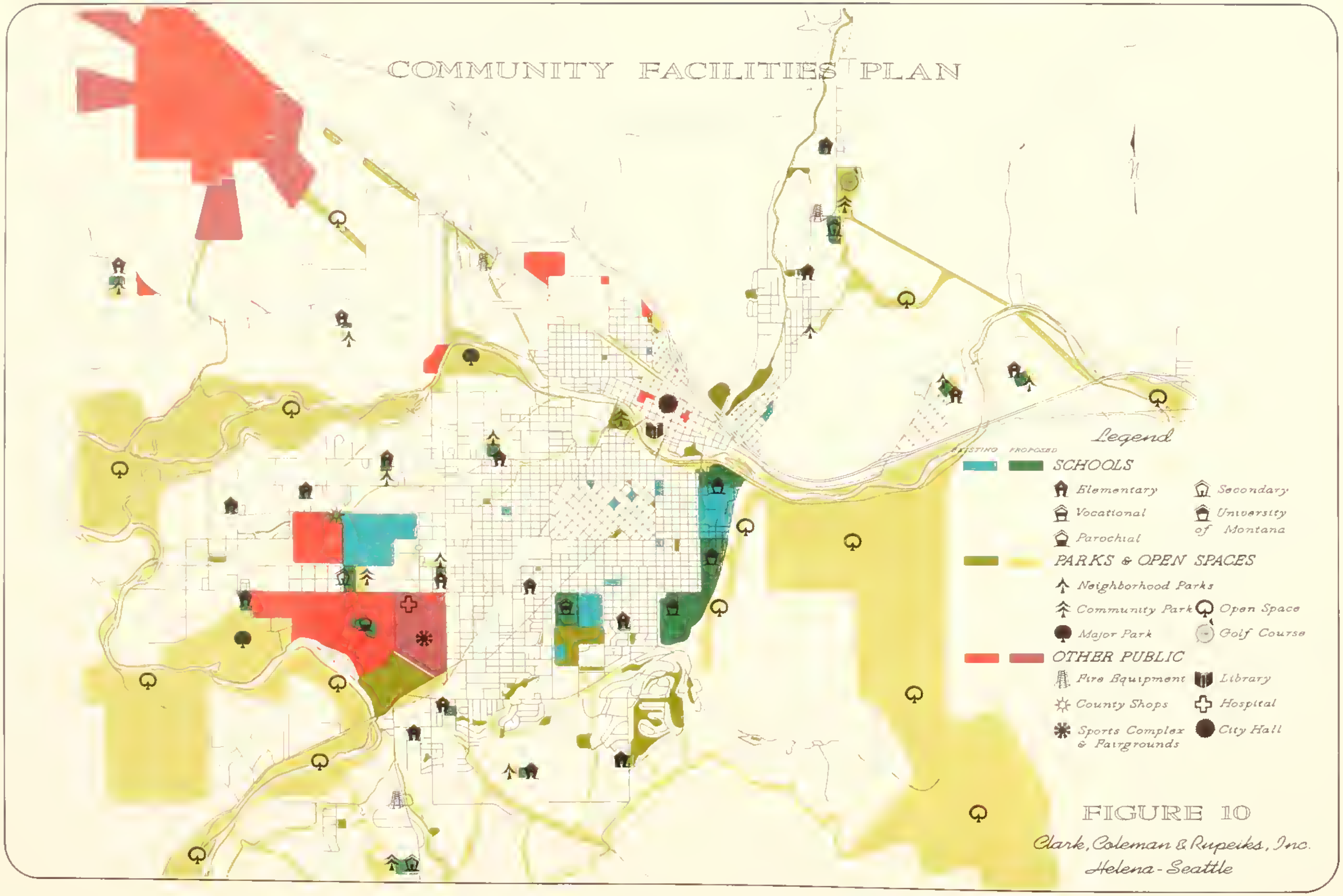


FIGURE 10

Clark, Coleman & Rupeiks, Inc.
Helena - Seattle

Estimates of the 1985 population distribution were the principal factors in determining 1985 school site locations and generalized elementary attendance area neighborhoods. The school types, their approximate location, and recommended site acreage are listed in Table III-2.

Table III-2 shows that over 133 acres will be required for proper new school site development by 1985. Not included in this estimate was the necessary acreage requirement for the proposed Missoula Area vocational school. Preliminary estimates have indicated a possible future enrollment of nearly 2,000 students. Acreage requirements could reach 40-50 acres depending, of course, on the extent and variety of the curriculum offered. The Plan however, does show the existing Missoula County Fairgrounds as the future Vocational School campus.

PARKS AND OPEN SPACE

The emergence of an urban America meant the loss of open areas to residential and other uses. Concurrently, the urban American found himself with a shorter work week, an earlier retirement and a longer life. In short, time became available for the pursuit of leisure activities, but there were fewer places to pursue them. Slowly, recreation evolved from a private to a public responsibility as officials realized that, rather than sheer luxury, recreative parks and open spaces supported the social and economic values of the community.

The need for recreational areas becomes evident through simple observation of the crowded conditions at those now in existence. The timing of land acquisition and proper location are therefore important and are preferably accomplished before further urban growth either engulfs land best suited for parks and open space or inflates the cost to a point prohibitive to purchase.

Much of Missoula's current park inventory is the result of state legislation requiring that one-ninth of a subdivision over 20 acres in size or one-twelfth below 20 acres be reserved for parks and open space. However, despite this continual source of new park land, the Planning Area lacks funds to develop properly the dedicated parks and lacks a proper governing agency to coordinate and direct park development. Before the Parks and Open Space Plan for Missoula can be accomplished, these two problems must be solved.

Existing Conditions

A total of 465 acres were classified as park and recreation land in the survey taken in the Planning Area during the summer of 1965. Of this amount, 227 acres were considered developed for some type of recreational use. Appendix D shows the results of this survey.

In the preparation of a parks and open space plan, established goals and objectives must provide the philosophical framework within which the community can bring such a plan into reality. These objectives are as follows:

- Create a system of parks, recreational and cultural areas, scenic drives and natural open spaces;
- Create a park system with a wide range of facilities capable of serving all ages and coordinated on a City-County basis;
- Encourage dedication of open space areas by subdivision developers that can combine with adjacent areas into larger, more usable open spaces;
- Continually encourage dedication of additional acreage to a parks and open space system for a more equitable distribution throughout the Planning Area;
- Encourage more intensive development of existing acreage;
- Encourage preservation and development of the Bitterroot and Clark Fork riverfronts into treelined and open space greenbelts throughout the Planning Area;
- Encourage the location of neighborhood parks adjacent to elementary schools, whenever possible, for greater economy and more efficient use;
- Encourage landscaping treatment of traffic islands and other small public areas as an incentive to an attractive community;
- Encourage development of special interest areas, such as scenic drives, historic areas and viewpoints;
- Encourage a systematic approach to tree planting along City and County streets to retain and enhance Missoula's natural beauty;
- Secure the necessary financing to achieve these objectives;
- Establish a regular, annual budget for park development and maintenance.

Standards

The gross park standard of one acre of developed parkland for every 100 citizens, as adopted by the Missoula City-

County Recreation Committee, meant 440 acres of such land were necessary to serve the 1965 Planning Area population. Within this standard, 99 acres should be devoted to neighborhood parks and playgrounds, 110 acres to community parks and playfields and 231 acres to major parks and other recreational areas. Table III-3, showing the various categories and their deficiencies or surplus, points to a total park surplus of 4 acres in the Planning Area.

The 1985 Planning Area projected population requires 735.0 acres of developed parks. This amounts to 276.1 additional park acres. Of the 735.0 acres, neighborhood parks and playgrounds will require 165.4 acres, community parks and playfields, 183.8 acres and major parks and other recreational areas, 385.8 acres, Table III-4.

TABLE III-3

1965 PARK AND RECREATION INVENTORY

	Total Acres	Acres Developed	Standard Acres	Acres Deficiency - Surplus
Neighborhood Park - Playground	254.3	98.8	104.4	+144.9
Community Park - Playfield	157.6	110.3	116.0	+ 41.6
Other Recreation	47.0	47.0	243.6	-196.6
TOTAL	458.9	256.1	464.0	+ 5.1

TABLE III-4

1985 PARK AND RECREATION REQUIREMENTS

Type of Facility	1965 Acres	1985 Acreage Demand	1985 Acreage Needed
Neighborhood Park - Playground	254.3	165.4	0
Community Park - Playfield	157.6	183.8	26.2
Major Parks	0	183.8	183.8
Other Recreation	47.0	202.0	155.0

THE PARK AND OPEN SPACE PLAN

The Park and Open Space Plan, a portion of the Community Facilities Plan, presented in Figure 10, is designed as a long-range development scheme for park land, open space and other recreational areas. Designed as a system and compatible with schools, residences, arterials and other future land uses, the Plan's success relies heavily upon cooperation and coordination among local government units.

The plan consists of neighborhood, community and major parks, the standards for which were adopted by the City-County Planning Board and its Recreation Sub-committee. The Plan also proposes riverfront development and preservation of greenbelts, viewpoints, scenic drives, historic points and arterial parkways. No real standards yet exist for these features, although they are necessary links in the creation of a complete park and open space system.

The following sections present a detailed discussion of the various facets of the Plan.

Neighborhood Park - Playground

Designed to serve an area generally within the limits of an elementary school attendance area, the neighborhood park primarily attracts use from the five to 15 year old age group. A typical service neighborhood can range in size from one-half to one square mile and contain 3,000 to 8,000 persons. Approximately located adjacent to an elementary school to promote joint use of facilities, the well-developed neighborhood park also provides separate areas for a variety of activities such as wading pools, ball courts and fields, open space, landscape areas and space for leisure activities.

Presently, there are 63 neighborhood parks and playgrounds, totaling 254.3 acres, within the Planning Area. Of this amount, 62.3 acres are owned and operated by the City, 116.6 acres by the County and the remaining 75.4 acres are administered by the various elementary school districts. Based upon the projected population and upon the adopted standard of one acre per 1,000 persons, for neighborhood parks and one acre per 800 persons for playgrounds, the Planning Area will need 165 acres by 1985. This total is 89 acres less than the present neighborhood park-playground total. In view of this situation, the Plan proposes development of existing parks and playgrounds before efforts are turned toward procurement of additional acreage. The neighborhood park-playground acreage total is deceptive since some of the parcels are undevelopable due to terrain and could be more properly termed open space. For this reason, it is strongly suggested that future dedications of park land, made under the State law governing subdivisions, be on land that can be developed as neighborhood parks and playgrounds. In cases where dedicated park land may be smaller than the recommended five acres, it is suggested that these areas be located on the outer edge of the subdivision so that neighboring subdivision park dedications can be combined to form a single park of sufficient size.

The Plan recommends that, where possible, new neighborhood parks and playgrounds be located adjacent to existing and proposed elementary schools. Additional neighborhood parks are not recommended for the older, developed parts of the City, since recreational demands in those areas should be fulfilled by existing park sites, supplemented by public school facilities.

Community Park - Playfield

This facility is designed to serve generally the attendance area of a secondary or high school usually ranging from 20,000 to 50,000 people. The community park-playfield, primarily aimed at meeting the needs of youth and young adults, is intended to provide a more spacious area than the neighborhood park. Location adjacent to a high school is recommended for economy and for full utilization of facilities offered.

Well-developed community parks-playfields should contain areas for field games, courts, indoor recreation centers, swimming pools, landscaped areas for leisure activities and parking space. The site size is at least 15 acres and, ideally, from 20 to 40 acres.

Presently, there are five community park-playfields in the Planning Area containing a total of 157.6 acres. According to the adopted standard of one acre per 800 persons for community parks and one acre per 800 persons for playfields, the Planning Area will require 183.8 acres of community park-playfield space by 1985, or 26.2 additional acres. The Plan recommends that future community park-playfields be located, where possible, adjacent to new high schools. Again this would provide for a more efficient and economical operation.

Major Parks

The major park takes advantage of a natural setting or features with an area-wide interest, and affords a pleasant, relaxing environment in which to pursue active and passive recreation. Effective utilization of natural wooded areas, open fields and meadows, and water courses is a must in the creation and development of a major park.

Roads should be kept to a minimum and parking provided at selected interior points and along the exterior at designated locations. Typical features of a major park are picnic areas, nature trails, swimming areas, experimental gardens and a possible zoo.

Standards recommend that no less than one acre for every 400 persons be reserved for major parks. Since no such parks are in existence presently, 183 acres will be required by 1985. Major parks are recommended to contain at least 100 acres.

As shown in Figure 10, the Plan proposes establishment of two major parks, both close to major arterials and capable of attracting visitors from the entire Planning Area and beyond. The first is along the Clark Fork River, north of River Road and east of the proposed Highway 93 bypass. The second park fronts the Bitterroot River opposite Fort Missoula on the Blue Mountain recreational site. At this site, a small impounding dam could be constructed to provide for a swimming area, creating a focal point for a large attractive park.

Open Space

Open space areas, particularly those areas with slopes in excess of 25 percent, ridges and crests, irrigation canals, creek valleys, stream beds, marsh areas and land subject to periodic flooding should be preserved under the open space classification. Shown in Figure 10, these areas form the linking network of the park and open space system.

Riverfront Development

American cities and towns that grew up along rivers and waterfronts historically regarded these amenity assets with indifference. If the body of water was navigable, the shoreline was a select spot for industry. If not, the river or waterfront became a dumping ground for refuse and the water itself the recipient of the City's sewer effluent and garbage. When the city began to recognize the potential of the riverfront or waterfront as a scenic area, the souvenirs of past neglect were still present.

In Missoula, with the two rivers meandering through the basin, the rationale for an active and well-planned riverfront development program is obvious. Enthusiastic support for such a program is apparent among civic organizations, subcommittees and individual citizens. In accordance with civic wishes, the Plan proposes (Figure 10) that the entire riverfronts of the Clark Fork and Bitterroot Rivers be preserved and enhanced throughout the Planning Area. Before a program of land acquisition is initiated, however, a professionally prepared study of a planned riverfront development program should be completed to avoid piecemeal, uncoordinated projects. Efforts in the interim should be of the cleanup variety.

Historic Areas

Missoula is an area rich in history, but the abundant historic sites and routes remain quite undeveloped. Points of interest, such as Hellgate Village, Mullan Road and

Hellgate Canyon, should be developed to their fullest potential with the dual aims of preservation and tourist attraction.

Viewpoints and Squares

In the development of viewpoints and squares within the Planning Area, particular emphasis should be given to landscaping those intersections where land is left vacant within street rights-of-way. Areas where such development has taken place are at the south end of the Madison Street Bridge, the north end of the Orange Street Bridge and the small planted area near the Northern Pacific Depot.

Although development of viewpoints will, in most cases, require improved access roads, such activity is encouraged. Suggested locations are the summits of Mt. Sentinel and Mt. Jumbo, Waterworks Hill and Remnant Butte southwest of Missoula.

Golf Courses

There are no publicly owned golf courses in the Planning Area, although the 18-hold Missoula Golf and County Club course, the nine-hole Leisure Highlands course and the nine-hole University of Montana course are open to the public.

In view of the increasing popularity of golf as a leisure activity, a public golf course is recommended for the Planning Area. At the standard of one hole for every three thousand persons, or one 18-hole course for a community of 50,000, one such course should adequately serve the 1985 Planning Area's needs in view of the number of existing private facilities. The site suggested by the Plan and shown in Figure 10 is that already recommended in the Lincoln Hills development in the Rattlesnake area.

Indoor Recreation Centers

Citizens of the Planning Area expressed to the consultants a strong desire for more indoor recreation centers and facilities. Sixteen gymnasiums or multi-purpose rooms were available in the Planning Area, with an additional two now under construction. In an effort to take full advantage of these facilities and to answer the wishes of the citizenry, the Plan suggests cooperation between the City Recreation Department and the school board in providing opportunities for indoor recreation. This approach would not only satisfy the need, but would permit joint use, prevent duplication of facilities and reduce the amount of land required. It is further recommended that schools with indoor facilities constructed in the future be included under the suggested arrangement.

Swimming Pools

Only one public swimming pool, at McCormick Park, is currently available in the Planning Area and is usable only in the summer months because it is of the outdoor variety. The University of Montana indoor pool is also open to the public certain days and hours of the week.

In Missoula, where rivers and lakes are frequented by swimmers, a strong water safety program is desirable, but such a program is severely impeded by the lack of swimming facilities.

Recommended standards are for at least 50 square feet of water area per 100 persons, or 6,000 square feet per 12,000 persons. Thus, a total of six pools, by standards, preferably indoor and located next to a high school for joint use, would be needed by 1985. Ideally, the new pools should be constructed at Hellgate and Sentinel High Schools, and at those schools proposed for Fort Missoula, the Rattlesnake, and the Farviews-Miller Creek areas. In view of construction costs and the heavy demand for other new community facilities, however, the community should concentrate on providing pools at two of the high schools and adding others as they become necessary and economically feasible.

Fire Department

Adequate fire protection is one of the essential services provided by local government. Millions of dollars are invested in residences, commercial establishments, industrial plants and other structures, and, in the event of a fire, certainty of quick response and adequate protection from a nearby fire station is a necessity.

Fire protection in the Missoula Planning Area is the responsibility of three separate organizations: the City of Missoula Fire Department, Missoula Rural Fire District and the East Missoula Fire Department. The City of Missoula Fire Department also covers areas outside the City by contract agreement. The Rural Fire District covers the area generally south and west of the City, and the department in East Missoula covers that area. Both the rural and East Missoula Departments are volunteer, except the Rural Department does have a full-time staff of six men. The rolling stock inventory of each district is shown in Table III-5.

TABLE III-5

PLANNING AREA FIRE DEPARTMENT ROLLING STOCK INVENTORY

Department	No. of Vehicles	Type of Vehicle	Pumping Capacity	Length
City				
Station 1	4	Pumpers	750-1000 GPM	---
	2	Aerial Ladders	---	75-85 Feet
	2	Pickups	---	---
	1	Station Wagon	---	---
Station 2	2	Pumpers	750 GPM	---
Rural Fire Department				
	2	Pumpers	350-750	---
	1	Tanker	3600 Capacity	---
East Missoula				
	1	Pumper	250-300 GPM	---

One measure of a City's or area's ability to protect its citizens and property is the rating assigned by the National Board of Fire Underwriters (N. B. F. U.). These ratings determine the "class" of fire insurance rating for an area as a measure of the quality of fire protection. Over 130 separate items under the general headings below are rated:

1. Water Supply
2. Fire Department
3. Fire Alarm
4. Police
5. Fire Protection
6. Building Laws

7. Structural Conditions
8. Climatic Conditions

During 1961, the N. B. F. U. inspected the City of Missoula's Fire Defenses, and rated the City a Class 5. At that time the Water Supply system and the Fire Department drew the heaviest penalties. Since 1961, however, many improvements have taken place and when the next survey is conducted, a Class 4 rating may be attainable. Such a rating would save an estimated 10 percent on fire insurance rates for Missoula citizens. The Rural Fire District, because it is principally a volunteer department, is rated a Class 9. East Missoula is unrated.

A great deal of emphasis in the ratings is placed upon station location. With population expected to increase over 67 percent by 1985, new fire stations will be needed. Problems, however, will become increasingly apparent as to which departments should construct new stations. As the City expands its limits, fire coverage from the City must also expand. Conversely, as the City expands its limits, the Rural Fire Department's service area diminishes, and conflicting coverage problems arise.

The Plan recommends either a consolidation of Planning Area fire defenses or signing of a mutual assistance agreement. Such a move would pave the way for a planned program of station location and coverage. Figure 10 shows the suggested station locations on the basis of coverage and running distances. Each station has been located, regardless of Fire District, to give the Planning Area the maximum in coverage at minimum capital costs. Thus, the cost of such an expanded coverage would be recovered in lowered fire insurance costs.

Missoula City Hall

A two-story, 55-year-old structure, the Missoula City Hall was recently condemned by the Fire Department as a fire hazard. With 55 employees in approximately 5,966 square feet of space, the structure contains, in addition to administrative and legislative functions, the police staff and jail operations. No one room is large enough for public meetings; these must be held elsewhere in the City. The City Council meets regularly at Fire Station Headquarters, for example, often interrupted by fire calls.

The present location is adequate, but the site and structure are too old and small to serve the City. The site is limited in expansion, measuring only 60 feet by 100 feet, and remodeling is questionable in view of the Fire Department's condemnation of the structure. Expansion of the existing site is questionable, too, because of adjacent real estate costs.

The Plan recommends a new site and structure immediately north of the County Courthouse and adjacent to the Fire Station Headquarters, forming a nucleus for a governmental complex. Access would also be improved and off-street parking facilities could be more easily acquired. The new complex would probably encourage redevelopment and would upgrade the appearance of the area.

Missoula County Library

The Missoula County Public Library system serves the public through the City Library and through branch units in eleven County communities and 18 rural schools. Total circulation in 1965 at all facilities amounted to over 192,000 volumes, with nearly 90 percent circulated at the City facility. Circulation has increased over 13 percent during the past ten years, but decreased slightly last year due to a lack of adequate rural staff and increase in the facility size of rural school libraries.

During the 1965-66 year, the library system required ten full-time staff members and six part-time assistants on a budget of over $78,000.

The City Library, constructed over 64 years ago, is obsolete due to its small size and age. The two stories, with 1,617 square feet of floor area each, have inadequate room for reading, research, meetings and storage. Additions to the structure are questionable in view of the structure's age and site size; site expansion would reduce the number of off-street parking spaces. All on- and off-street parking spaces are currently metered, thus reducing the attendance a library would have with free off-street parking.

The Plan proposes abandoning the present structure. A new site should be acquired in the Island Park development at Front Street. Adequate off-street parking should be made available for foreseeable future needs. The site would still be near the downtown, and would become a part of a community center. Access to the new library would be improved with the proposed Island Park development and the attractive setting would prove an asset to the Area.

Missoula Community Hospital

The Missoula Community Hospital is one of three such facilities and the only public hospital in the Planning Area. Constructed in 1922, the Community Hospital was rated structurally "above average" but functionally "poor." The physical layout of the hospital and site are such that they create high operational and maintenance costs. As a remedy, the Hospital Board has decided that rather than remodeling or improving the existing facility, they would prepare plans for constructing a new 100-bed facility. As a first step, the Hospital Board recently purchased 40.3 acres of land from the County at Fort Missoula. Construction of the new facility is expected to begin within two to three years, depending upon how financing costs can be arranged.

The new site will front on South Avenue, approximately one-quarter mile west of the Russell Street intersection. Access will be particularly convenient due to its location and the eventual completion of the "93" highway by-pass. The site will be within a short running distance from the bulk of residential development and will not be constricted by heavily traveled streets. The site will also be away from concentrated commercial and industrial development and in an atmosphere of quiet and openness.

County Shops

The County shops, the service and storage center for all County maintenance equipment occupies the northwest corner of the County Fairground site.

In recent years, increased demand has been placed on the County shops due to a rapid population growth of the Missoula Area. This new growth has added more roads, sewers and other facilities to the growing inventory of County responsibilities. Correspondingly, this growth has resulted in the County acquiring additional equipment and personnel to service the increased demand. As a result, the present site is now severely lacking in storage and maintenance space. More land area is needed. To expand the present site is questionable. Surrounded by the County Fairgrounds, already handicapped by an insufficient site, a nearby high school, an expanding commercial district bordering Highway 93, and an ever-increasing volume of traffic on bordering streets, the County shops should consider moving the entire operation. County officials have expressed a desire to move the "shops" to presently owned County land on Spurgin Road. Here, ample room is available for the present facility and any future expansion. The Plan recommends the move be made and the site should be well served by existing and planned street networks.

Fairgrounds, Fieldhouse and Stadium

On the Missoula County Fairgrounds, many of the exhibit buildings and grandstands are approaching obsolescence and need replacement. During Fair time, traffic congestion at entrance and exit points creates hazards and restricts flow on South Avenue and at the Brooks Street intersection. Parking space is limited. Considerable discussion of late has thus centered around the future of the fairgrounds.

Local proposals for use of the site include expansion of Sentinel High School, a vocational-technical school, enlargement of Spartan Park, a new football stadium and a sports center fieldhouse. Outside interests have offered to purchase the site for a shopping center.

With land costs at an all-time high, any publicly-owned land should be thoroughly studied for future use before considering release to commercial interests. The Plan suggests that the fairground site be used for the proposed vocational-technical school, expansion of Sentinel High and enlargement of Spartan Park. If financing is secured, the vocational-technical school could enroll a possible 2,000 students by 1985 and may require the bulk of the fairground site.

The Plan recommends that the fair and its structures be relocated to the County-owned Fort Missoula property, where approximately 150 acres are developable. With proper design, the new fairgrounds, complete with structures and ample parking, could become a valuable asset to Missoula County. Too, the Plan suggests an indoor fieldhouse with seating for up to 5,000 persons - a facility for which the need has been stressed - be integrated along with a suggested outdoor stadium into the proposed Fort Missoula site. By combining all three facilities, Planning Area citizens will have an efficient and centralized civic and sports complex with room for expansion, easy access and ample room for parking.

Missoula Sanitary System

The Missoula Sanitary Sewer System serves virtually the entire City through a series of 55 miles of trunk and lateral lines. Four lift stations, located at various problem areas, assist the principally gravity flow system. All sewage from this sanitary system is treated at the new treatment plant two miles downstream from the Missoula Business District on the Clark Fork River. The new plant, constructed in 1963, treats an average daily flow of 4.0 million gallons, considerably below its daily capacity of 9.0 mgpd.

Missoula Storm System

The City's Storm Sewer System is but a limited system serving mainly the Missoula Central Business District. Because of the lack of an area-wide system severe drainage problems arise during periods of heavy rainfall or snow runoffs. These conditions result in accumulation of deep water at street intersections and numerous low spots throughout the area. Additionally, standing water speeds up the deterioration of surfaced and graveled streets to a point where paving can only be expected to last but a few short years. Graveled streets require repeated maintenance under these conditions, running street costs spiraling upward.

Future Sewer Systems for Missoula

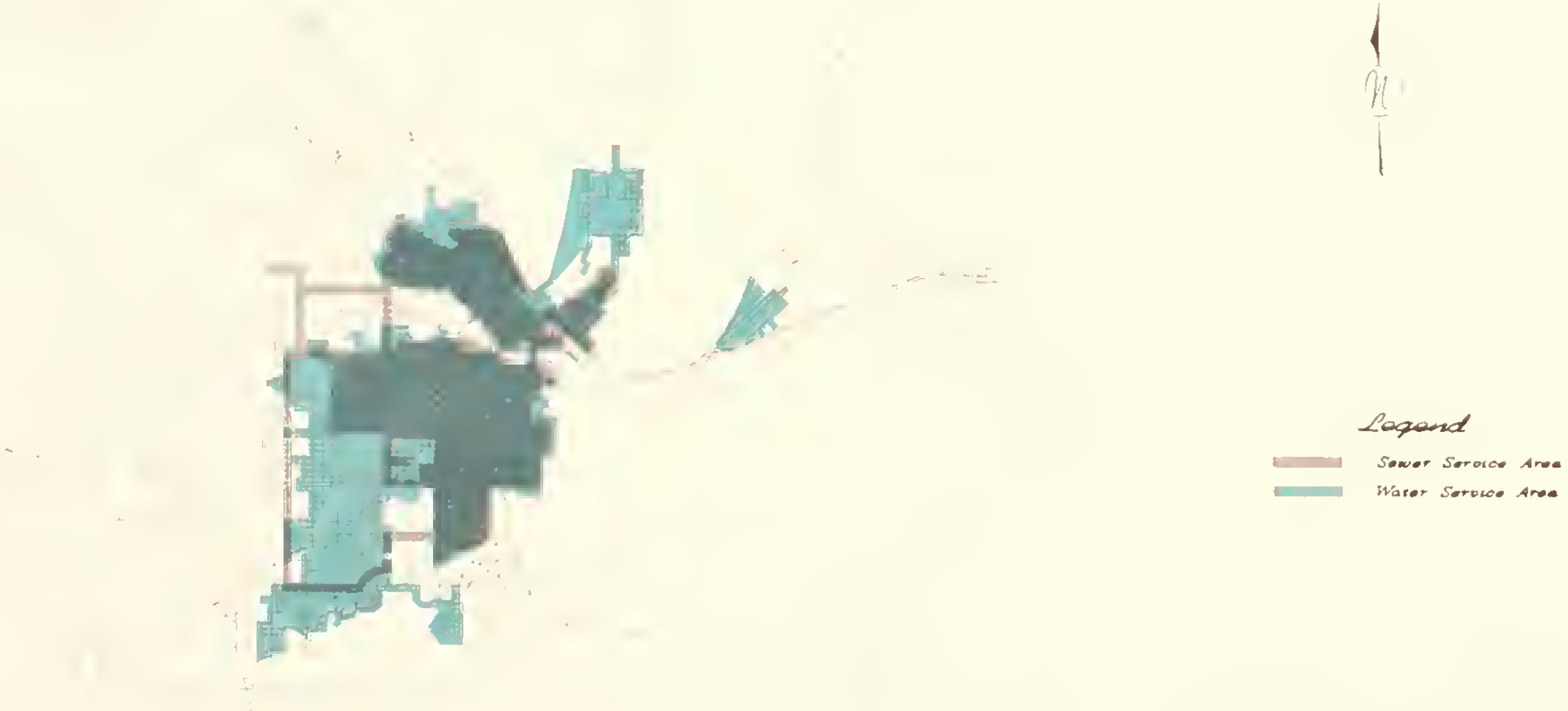
To serve areas not now sewered will be a major project of major proportions. Particular emphasis will be needed for the creation of an area-wide storm sewer system, a basic necessity to a successful street improvement program. The choice to select constructing either a separate or combined sanitary-storm sewer system, must be thoroughly researched through a separate engineering study. Areas that will present special problems because of their relative isolation will be the Rattlesnake and East Missoula areas. Miller Creek, at some future date, will also require treatment facilities. One factor that is to the Planning Area's advantage is the gradual slope of the Missoula Basin to the west. The design of a future sewer system will be able to take advantage of this slope, keeping pump or lift stations to a minimum and utilizing a gravity flow system.

Missoula Area Water System

Water for the Planning Area is provided primarily by two private water distribution systems, the Montana Power Company and the Farviews Water Company. In addition, hundreds of homes in the fringe areas generally have individual wells providing their water.

The Montana Power Company is the larger of the two private utility companies in Missoula. Its system in 1960 distributed 17 mgd to residential customers, up 5 mgd from 1950. No figures were available for commercial and industrial usage; however, its treatment plant (chlorinate) treated approximately 30 mgd. Storage capacity in the system is provided by three 25,000 gallon elevated tanks and one 1-million and one 3-million gallon reservoirs. The source of supply is made up of 15 wells and 8 storage lakes in the Upper Rattlesnake Watershed. As an indicator of growth in the area, the company installed over 37,000 lineal feet of pipe and 10 hydrants in 1965.

WATER AND SEWERAGE SERVICE AREAS



Survey Year 1965

FIGURE 11

Clark, Coleman & Rupeiks, Inc
Helena - Seattle

The Farviews system, considerably smaller, serves approximately 200 residential customers. No consumption figures were given, however, its storage capacity amounts to 202,000 gallons in two reservoirs. Its source is two wells located near Elms Park just east of Spartan Park. As an indication of growth in this area, the Farviews Company installed 5,000 lineal feet of main and 6 hydrants last year. The map of Water Service, Figure 11, shows the general distribution system found in the Planning Area. As virtually all new development requires water, the immediate availability of water service to planned developments can be determined. Only those areas with a minimum of 6-inch transmission lines, the minimum requirement for hydrant hookup are shown. For the larger users of water, such as certain industry, proximity to larger mains would be an important consideration.

CHAPTER 4

MAJOR STREETS AND HIGHWAYS

To give direction to the development of a transportation plan and to establish a basis for plan selection, the goals and objectives of such a plan must be defined, recognition must be given to planning restraints and the means by which progress can be made must be described. Future travel needs are then analyzed, and planned and programmed transportation improvements are evaluated in their adequacy to serve these needs. Deficiencies can then be identified. In the background of transporation planning, however, is a basic premise that facilities must be planned in response to how people wish to travel, when and where they wish to go and with complete acceptance of their reasons for making trips.

Goals and Objectives

The goals of major streets and highways plan are, of course, the same as those of the Comprehensive Plan; that is, the provision of a good place for people to live and work with a maximum level of services, amenities, economic opportunity and safety at a reasonable cost.

Toward the achievement of these goals, transportation planning requires its own set of clearly defined and measurable objectives. Six such objectives were formulated and adopted for Missoula. They are: the reduction of travel time, or decreased consumption of time in traveling from place to place; increased safety; lower operating costs for the vehicle over the duration of a journey; economy in new construction; minimal disruption of homes, businesses and other activities during construction; and promotion of better land development through increased value of land and improved arrangement of uses.

Planning Restraints

Plan development is influenced in varying degrees by many factors, grouped together under the heading of "planning restraints." Together with the stated objectives, these restraints further limit the solutions that can be found for long-range transportation problems in the Missoula area.

Level of Detail

The transportation plan is not a cure for all of Missoula's urban travel problems. Everyday problems, like the timing of traffic signals, locations for loading zones and turn restrictions, will be left to the engineers responsible for operations. Final geometric design of specific major streets is not a part of the plan, although advancement of standards for a design and recommended corridor alignments for new arterial and collector streets are. The primary task of the Major Streets and Highways Plan is to provide a measure of future travel demand and to recommend a system of facilities in response to the demand and in line with stated objectives.

Existing Facilities

Rapid or indiscriminate change of land development and transportation facilities as they have evolved over the years is neither economically desirable nor justified. Invested capital should be conserved through utilization and, where practical, expansion of existing facilities. The same restraint applies to plans that have been devised in the past, representing extensive study and coordination.

Target Date

The transportation plan is directed toward the travel needs of a forecasted 1985 population of 73,500 persons, although it will make little difference if Missoula reaches this population a few years before or after the target year. New facilities, once planned, must be programmed at a pace consistent with the rate of growth and with available fiscal resources.

Improvement Costs

Usually, in an urban area, the cost of providing needed improvements in transportation greatly exceeds the amount of funds available. Although it is difficult to determine the community's willingness to pay for a given level of services, the transportation plan has been prepared according to what is economically feasible and to the community's ability to pay.

The Existing Streets and Highways System

The street and highways system as it was in 1965 is shown in Figure 12. The streets were classified federal aid primary and secondary, and city and county arterials. The heaviest volumes of traffic were generally found on the primary arterials and the lightest on county arterials.

Federal Aid Primary

In this category in 1965 were: U. S. Highway 10 and 93, with volumes ranging from 6,200 to 14,300 vehicles per day on selected links; Madison Street, carrying daily loads of up to 9,800 vehicles; 5th and 6th Streets, each with average daily volumes of 6,000; Higgins Avenue carrying the heaviest daily volumes of from 13,100 to 16,800 vehicles; and Brooks Street, with daily loads

1965 MAJOR STREETS & HIGHWAYS

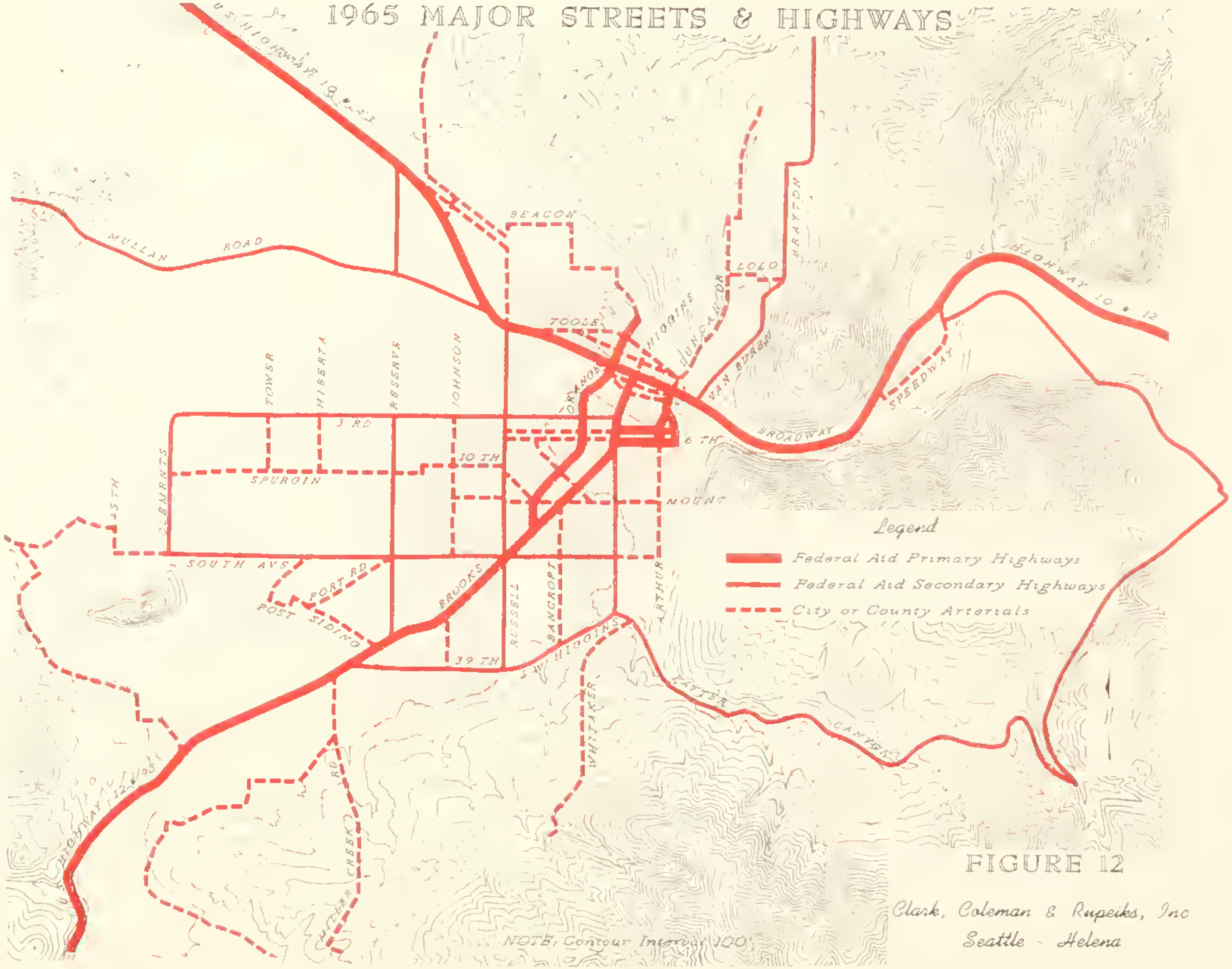


FIGURE 12

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ranging from 10,400 to 14,000 vehicles. Others are Highway 12 and 93, with average daily volumes of between 4,100 to 7,900 vehicles; Orange Street, with a daily travel range between 4,300 and 10,900 vehicles; Stephens Avenue carrying vehicular loads of 6,700 to 7,500 vehicles; and Middlesex Street, with an average daily volume of 5,500 vehicles.

These streets and highways, termed Federal Aid Primary in 1965, provided the major access and egress routes to and from Missoula, to the CBD from outlying areas and through the City for traffic not wishing to stop. The advent of Interstate Highway 90 meant, however, that a facility capable of carrying large volumes of traffic at high speeds was available for travel in addition to those listed above.

Federal Aid Secondary

As shown in Figure 12, these usually provide access to the primary highways from areas somewhat distant. The streets so classified in 1965 were VanBuren-Brayton Street, County Route 45, northern extension of Reserve Street, Mullan Road, South 3rd Street, Clements Street, South Avenue, Reserve Street, Russell Street, South Higgins and Southwest Higgins Avenues, South 39th Street and Pattee Canyon Drive.

Although the secondary highways varied greatly in the amount of traffic carried, some, notably South Avenue, Russell Street, and South Higgins Avenue, displayed average daily traffic volumes nearly equal to those of the primary highways. Others, in the less developed areas, carried lower volumes of about 2,000 to 3,000 vehicles per average weekday.

City and County Arterials

Those streets designated City and County arterials in the figure are the links in the network that give access to primary and secondary arterials and collect traffic from commercial, residential and other areas.

The City and County arterials in the CBD carried some of the heavier volumes. Toole Avenue carried average daily volumes of between 850 and 2,350 vehicles and Spruce Street volumes ranging between 2,000 and 3,700 vehicles. Madison Street had an average load of 4,100 vehicles per day. Higgins Avenue, in the CBD, had a range in volume between 4,000 and 11,800 vehicles per day. Front and Main Streets carried average daily volumes of between 500 and 4,900, and between 2,000 and 5,800 vehicles respectively.

Outside the CBD, Arthur Avenue, as the arterial serving the University and north-south traffic generally carried volumes ranging from 3,000 to 5,300 vehicles per day.

Transportation Facilities

Both a preference and a need for travel by private automobile emerged in the analysis of 1965 travel survey data, and 1985 forecasts assumed that this would continue to be the primary mode of travel. The type of facilities covered by the transportation plan was thus confined to streets over which cars, busses and trucks will move. Streets have the two principal functions of providing access to land and of providing channels for the movement of vehicles or persons. Since it is no longer possible to use streets as all purpose roads, the extent of the utilization of the four basic street types, listed below, in the Plan depends entirely upon the level of land access or traffic service provided.

Local Access Streets

Whether in residential, commercial, or industrial areas, this type of facility has the function of land access. The volume of traffic carried is normally very low.

Collector Streets

This type collects traffic from local access streets and carries it to arterials, but differs little in design from the local access street. Because greater emphasis is on traffic service, however, the collector street should be center striped and stop-lined at cross streets.

Arterial Streets

Faster and safer than local streets, arterial streets serve primarily a traffic service function but must also provide access to high trip generating land uses requiring this type of facility. Arterials should be planned with an eye to unification of the urban area. Arterial streets are preferably constructed with centered medians to allow physical separation of left turning vehicles, to provide islands for pedestrians and effectively separate opposing traffic.

Parking should not be permitted on arterial streets. In densely built-up areas, such as the Central Business District, this general rule must sometimes be compromised for economic reasons and traffic control techniques become important tools in providing adequate capacity.

Freeways

The function of the freeway is to accommodate large volumes of traffic at high travel speeds. Full control of access is achieved through grade-separated interchanges not less than one mile apart and opposing lanes are median divided. Interchange points must tie in with the local arterial street system to facilitate long distance intra-urban traffic.

Forecast of Future Travel

Increasing at a faster rate than population, the projected 1985 daily travel in the Missoula urban area will be about twice that experienced in 1965. The evaluation of future requirements involves relating the projected size and distribution of future travel to the existing network of facilities, which provides a measure of traffic usage as compared to capacity on each facility.

The forecasts of social and economic characteristics and land use found in Chapters I and II are prerequisite to travel forecasting, since the characteristics of a population determine its travel patterns. Trip making can be determined as a function of such factors as household size and location, employment and school enrollment, relating the volume of trip making to human need. These socio-economic characteristics must, however, be ultimately related to other variables determined from the forecasts of land use.

The process of developing estimates of future travel involves a trip end forecast, a trip end linking by means of a mathematical model and the assignment of forecasted trip interchanges to alternative street and highway systems.

Planned and Programmed Improvement

All street and highway improvements, planned, programmed or under construction were added to the existing network to determine the effect of improvements on the street system. The resulting network, composed of existing streets and those planned, programmed or actually under construction, was termed the "committed system."

The most dramatic improvement was the construction of Interstate Highway 90, crossing the Study Area in an east-west direction. Interchanges are provided at the intersections with the Grant Creek Road, Orange Street, Van Buren Street and East Broadway. Reserve Street between Interstate Highway 90 at the Grant Creek interchange and

U. S. Highway 12 and 93 north of the Bitterroot River, adjacent to the Fort Missoula grounds, has been scheduled for stage construction.

Other improvements added to the existing network were the widening of U. S. 10 and 93 to four travel lanes with median and parking lanes or shoulders between Lincoln Street and the interchange with Reserve Street, and widening of U. S. 10 and 12 east of Madison Street. Definite plans have been made for improvement of U. S. 12 and 93 (Brooks Street) between Higgins Avenue and the crossing of the Bitterroot River.

Construction of the section of U.S. 12 and 93 south between Lolo and the Bitterroot River to four travel lanes is now in progress. The structure over Rattlesnake Creek at Lolo Street has been replaced with a wider structure permitting travel between Duncan Drive and Brayton Street.

Other planned improvements include directional signing, signalization, street lighting and surfacing, having little effect on the level of travel service.

Future Traffic on Present and Planned-Programmed Facilities

Using the minimum time path method, the forecasted 1985 zone-to-zone vehicle travel movements were assigned to the network of streets consisting of present and planned-programmed facilities. This assignment reflects the traffic that can be expected on the streets and highway system in 1985 if no additional improvements are made beyond those presently programmed.

The forecasted travel volumes, however, represent travel desires assuming unlimited available street capacity. Introduction of practical street capacities of each facility for comparison with traffic volumes determines whether the facility is able to accommodate the desired load. If prior development or economic considerations limit the improvements that can be made where desired volume exceeds capacity, alternative solutions can sometimes be achieved through analysis and adjustment of the streets and highway system.

Volume-Capacity Comparisons

Street capacity is determined by such permanent factors as cross-section and intersection design and spacing, and such variables as signal timing, turning movements, parking, bus stops, pedestrian movements and land use. Since the variable factors may change over the years, and even vary from day to day, an approximate, generalized definition of capacity is used. For planning purposes, street capacities are expressed in 24-hour terms.

The comparison of 1985 traffic volumes with street capacity on the system of present, planned and programmed facilities is shown in Table IV-1. Volume capacity comparisons are shown for sections of major streets in a general travel corridor, or across specific screenlines or natural boundaries, such as the Clark Fork River or the Northern Pacific Railroad.

Except in travel corridors including Interstate Highway 90, estimated 1985 traffic volumes exceed capacity in nearly all major screenlines, as can be seen in the table. Deficiencies of less magnitude are also anticipated in the Study Area. Analysis of localized as well as corridor deficiencies is vital to the determination of future needs and the development of the transportation plan.

Analysis of Future Travel Needs

Six major problem areas requiring solution emerge through examination of capacity deficiencies across major screenlines and in travel corridors. These areas are the crossings of the Northern Pacific Railroad tracks and the Clark Fork River, access to Interstate Highway 90, access to the Central Business District, circulation near the University of Montana and traffic flows through the intersection of Russell, Brooks and South.

Railroad Crossing

The grade separated crossings now in existence at Orange, VanBuren and East Broadway, and the additional such crossing programmed for Reserve Street, are not adequate to meet the estimated 1985 demand of 72,900 vehicles per day. In view of the location of Interstate Highway 90 on the northern side of the tracks, an additional facility is needed in the vicinity of Orange Street to facilitate highway-oriented travel and in the area between Orange and Reserve Streets for local travel from residence to areas of commerce and industry.

In the vicinity of Orange Street, evaluation of the alternatives indicated that construction of an undercrossing parallel

TABLE IV-1

COMPARISON OF TRAFFIC VOLUME AND STREET CAPACITY

	Traffic Volume 1985 AWD	Street Capacity	Volume Capacity Ratio
West Corridor (East of Russell)	35,400	59,900	0.59
East Corridor (East of Van8uren)	40,100	45,700	0.88
South-East Corridor (Clark Fork River)	55,400	35 500	1.56
South-West Corridor (Clark Fork River)	31,700	26,200	1.21
South-Central Corridor (South of 6th)	48,800	36,100	1.35
South Corridor (Northeast of Brooks-South-Russell)	37,400	27,900	1.34
Railroad Screenline (N. P. Tracks)	72,900	58,300	1.25
River Screenline (Clark Fork River)	91,000	64,200	1.42
South Screenline (South of 6th)	76,600	87,400	0.88

to the existing structure would prove most economical and feasible. The probable closure of the VanEvan crossing limits access to the area north of the railroad tracks and west of the Rattlesnake Valley and an additional crossing is necessary. Evaluations have indicated that an overcrossing in line with Scott Street would prove most feasible. The capacity of Van8uren Street between the Interstate Highway and East Broadway can be increased through extension of VanBuren south across East Broadway, requiring construction of ramps on the north end of Madison Street Bridge or a new crossing of the Clark Fork River.

River Crossing

Through past development, the Clark Fork River has emerged as a natural barrier between the commerce and industry of the north side and the predominantly residential use of the south side. Most automobile trips between home and business have thus come to involve crossing the river. The four existing bridges at Higgins Avenue and at Madison, Russell and Orange Streets had a combined average weekday volume of 49,400 vehicles in 1965. The volume is expected to increase 77 percent by 1985, a total of 87,100 vehicles per day. Traffic carrying capacity of the bridges, including that planned for Reserve Street, amounts to 61,700 vehicles per day. Obviously, an additional bridge must be built or, since total capacity is dependent upon the capacity of bridge approaches, access to the present bridges must be improved.

Among the various river crossing alternatives considered were a crossing of the Clark Fork River west of the confluence with the Bitterroot River, a crossing of the Clark Fork in line with Scott Street and a parallel structure on either side of the Orange Street Bridge or widening of the present facility. The parallel structure on the west side of Orange Street appeared more workable than on the east side.

Improved access to the Madison Street Bridge at both approaches was also considered feasible. Finally, a crossing of the Clark Fork River in line with VanBuren Street was considered.

Interstate Highway Access

Because construction of Interstate Highway 90 required such a large capital investment, every effort should be made toward maximum utilization of that facility. Through the four interchanges, located at Grant Creek Road, Orange Street, VanBuren Street and East Broadway, an estimated 58,200 vehicles entered and left the Study Area each day in 1965. The Grant Creek and East Missoula interchanges are considered capable of handling estimated 1985 volumes, but the other two are not.

A parallel undercrossing of the railroad tracks, and construction of a parallel structure along the present Orange Street

Bridge would improve conditions there. At VanBuren Street, improved accessibility requires either construction of a new bridge or construction of direct access to Madison Street Bridge. In any case, the four interchanges should be fully integrated with the primary arterial system.

Central Business District Access

As the largest single traffic generator in the Study Area, the CBD requires congestion-free arterial street facilities to and from the central businesses, as well as by-pass facilities, to maintain the investment and insure future growth. Although CBD circulation is covered in detail in Chapter V, it can be noted here that movements to and from the CBD will take place on the radial arterials of East and West Broadway, Orange and Madison Streets, and Higgins Avenue. The by-pass routes for traffic not wishing to enter the central area are Interstate 90 on the north, Madison Street on the east, the 5th and 6th Street one-way couplet on the south and Orange Street on the west.

University of Montana

A total of 10,253 vehicle trips either began or ended on the University campus in 1965. This total is expected to reach 33,400 by 1985, and provision of adequate arterial facilities to handle this number with a minimum of congestion is a necessity.

Natural land formations, such as Mt. Sentinel, control and channel traffic flows, so that the corridor of east-south traffic in Missoula passes adjacent to the University of Montana campus. To maintain unity within the campus, the major arterial route serving both the University and east-south traffic generally should be located either east or west of the campus. The community indicated that they preferred the westerly or Arthur Avenue route.

Brooks Street

Brooks Street, as a designated U. S. Highway and a major route to the CBD, carries substantial volumes of traffic. Its width was inadequate for the 14,000 vehicles per day carried in 1965 and will be for the estimated 1985 loads of from 12,000 to 22,400 vehicles per day. The Montana State Highway Commission programmed Brooks Street for improvement between Higgins all the way north to Lolo. Roadway widening from the Buckhouse Bridge over the Bitterroot River to Lolo is underway and plans are currently being drawn for the section of Brooks north of the Bitterroot River. Improvement of Orange, Stephens and Middlesex in lieu of Brooks, and realignment of Brooks between Paxon Street and the Buckhouse Bridge were considered desirable and feasible alternatives.

THE MAJOR STREETS AND HIGHWAYS PLAN

The inventories and forecasts of population and employment, land development and travel patterns that formed the basis for the Land Use, Community Facilities and Central Business District Plans also govern the dimensions of the Major Streets and Highways Plan. The similar framework lends a continuity that will assure coordination and integration of the various plans for Missoula's development with each other.

To achieve balance and efficiency, each component of the plan must be developed to accommodate anticipated demand throughout the entire transportation system. The plan for the Missoula area will thus include: roadway facilities to serve automobile-dominated travel demand, including freeways, arterials, collector and local service streets; and off-street parking and terminal facilities located in strategic areas in the sections of high trip attraction.

Another component, to be covered more comprehensively in a later report, is transit service. Although the effects of such service on trip-making and on necessary street facilities are minimal, it is essential to community economy, providing transport to the aged, the young and others unable to operate automobiles on public streets.

The recommended network of freeways, arterials and collector streets for the Missoula urban area is shown in Figure 13. The suggested plan is a blend of prior street planning, the existing network and existing and future land uses. The network is planned for implementation and is economically feasible. Further, although specific proposals are designed to meet 1985 travel conditions, the Plan is flexible and can be modified to serve the need several years earlier or later than 1985. Figure 14 shows 1985 average weekday traffic flows on the recommended Plan system.

Freeways

Interstate Highway 90, passing through Missoula in an east-west direction, provides the only freeway facility in the area. An estimated 16,200 vehicles per day will enter the Planning Area and 34,000 will exit via the freeway by 1985. No apparent need exists for an additional freeway facility within the planning period.

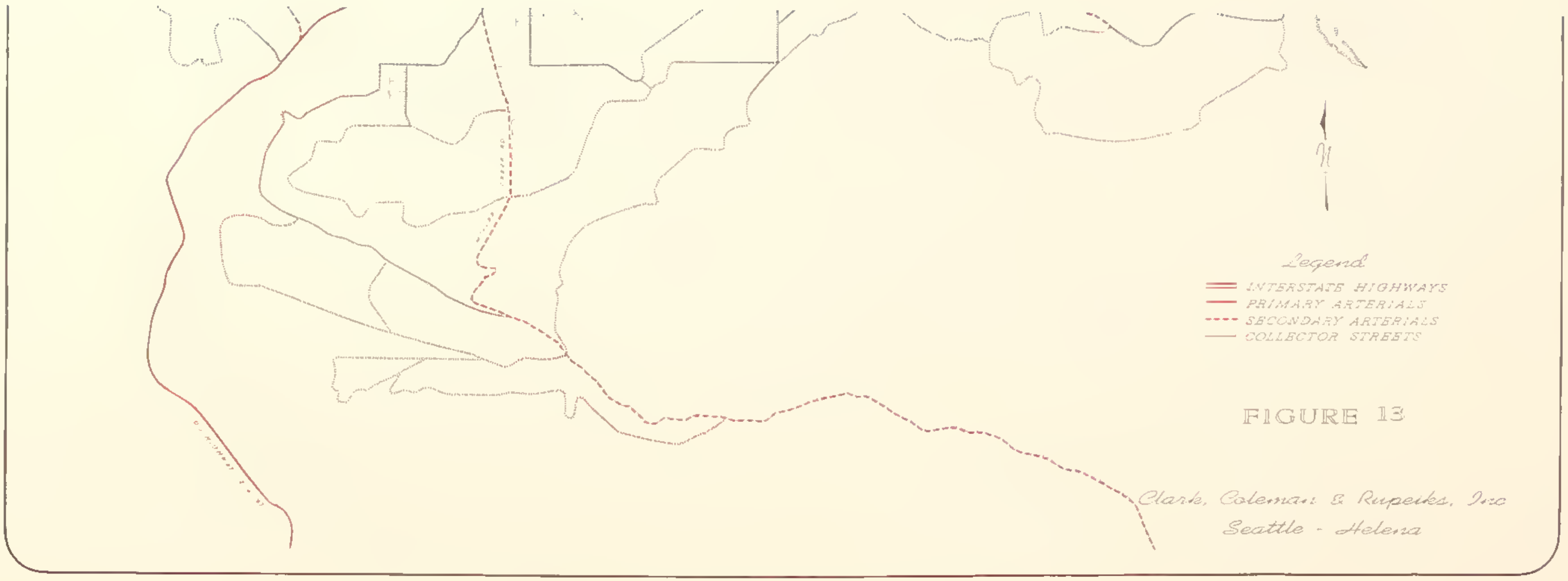

FIGURE 13

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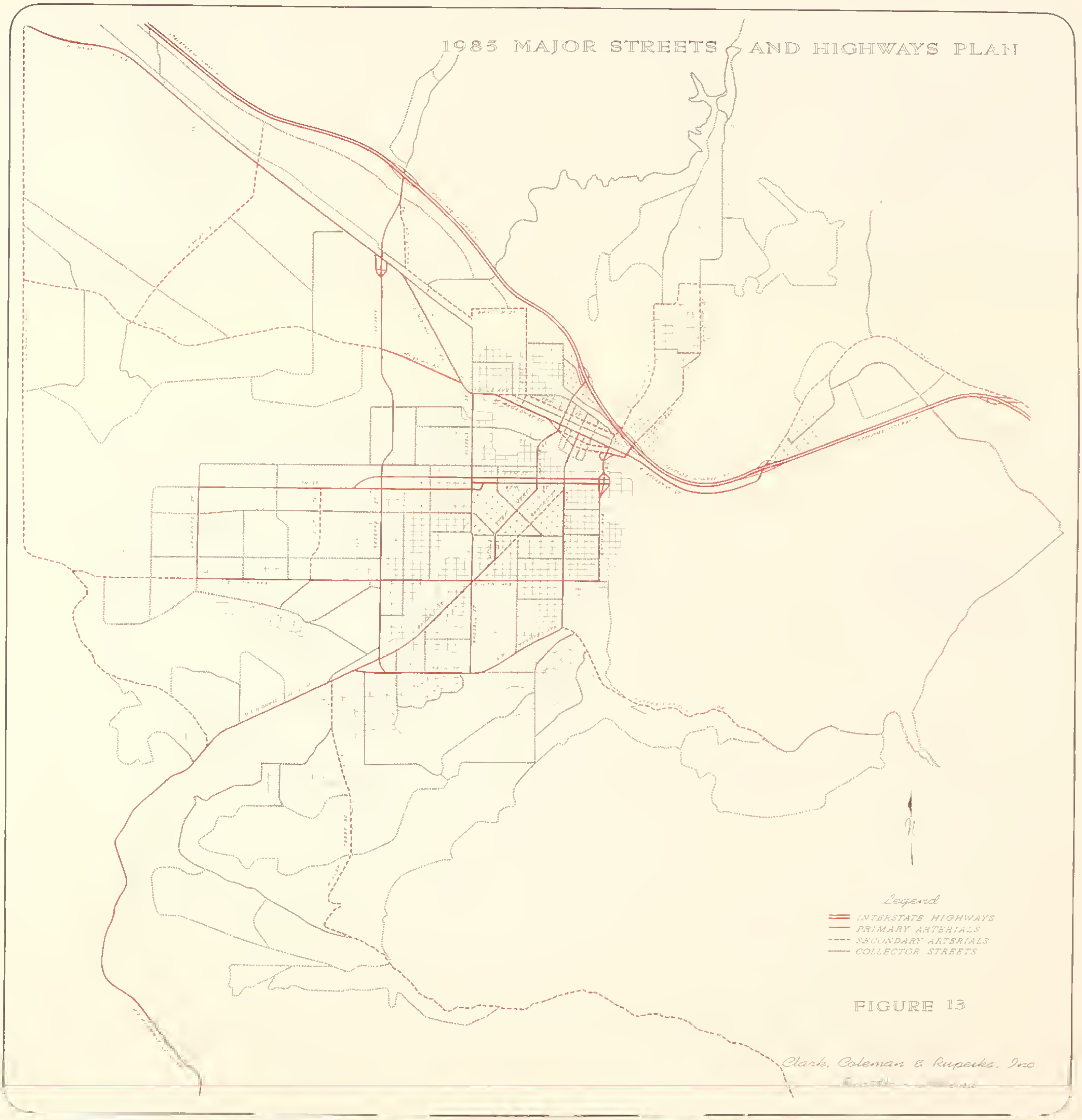

FIGURE 13

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Primary Arterials

The primary arterials shown in the Plan as intersecting with Interstate Highway 90 are Reserve Street, Orange Street, VanBuren Street and East Broadway in East Missoula. The daily volumes anticipated by 1985 on the various links of these arterials are shown in Figure 14. Estimated volumes on Reserve Street range between 6,400 and 11,300 vehicles, on Orange Street between 15,300 and 26,200 vehicles, on VanBuren Street between 26,400 and 32,300 vehicles and on East Broadway between 4,400 and 15,500 vehicles per day.

The other primary arterials, not previously mentioned, are: Higgins Avenue-39th Street, where the estimated 1985 volumes range from a high of 18,600 vehicles per day north of Pattee Canyon Drive to a low of 1,900 east of the new alignment of Brooks Street; Brooks Street, with estimated volumes of 12,100 to 25,600 vehicles per day by 1985; and Russell Street, carrying anticipated loads of from 2,800 to 12,700 vehicles per day.

The 5th and 6th Street one-way couplet, 7th Street and Clements Avenue are also considered primary arterials in the Plan. As a major cross-town facility and east-west collector-distributor to the CBD, the estimated 1985 volumes range between 11,100 and 15,600 vehicles per day on the one-way couplet The anticipated 1985 daily volume on Clements Avenue is about 1,100 vehicles. South Avenue, running between Clements and Arthur Avenues, is a primary arterial with estimated 1985 traffic volumes ranging between 2,800 and 11,900 vehicles on selected links.

Finally, Mullan Road between Reserve and West Broadway, U. S. Highway 10, expected to carry 3,500 vehicles per day by 1985, and Madison Street between the Bridge and Broadway, with an estimated 1985 volume of 7,100 vehicles per day, are the last links in the primary arterial system suggested by the Major Streets and Highways Plan.

Secondary Arterials

The secondary arterials recommended by the Plan are: the northerly by-pass along Big Flat Road; the westerly extension of South Avenue, west of Clements Avenue; Mullan Road, west of Reserve Street; South Airport Road; Scott-Beacon-Raeser Drive; 31st Avenue; the western branch of Miller Creek Road; Brooks Street between Middlesex and Higgins Avenues; Pattee Canyon Drive; Duncan and Brayton Drives in the Rattlesnake Canyon; U. S. Highway 10 from

1985 TRAFFIC VOLUMES: RECOMMENDED TRANSPORTATION PLAN

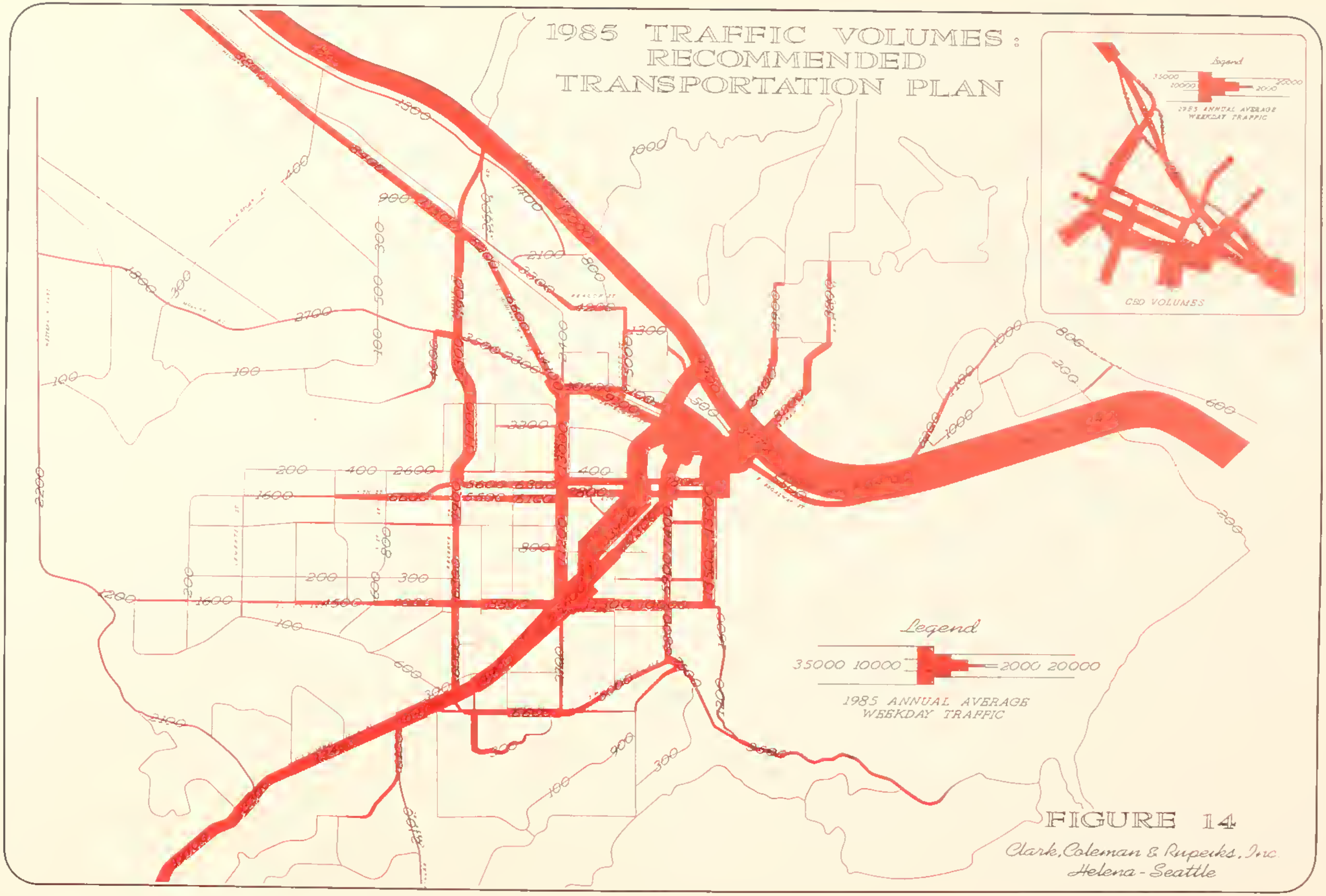

FIGURE 14

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East Missoula to Milltown; and Spruce, Main and Front Streets and part of Higgins Avenue in the CBD.

The locations of the suggested secondary arterials can be seen in Figure 13. The daily volumes of traffic expected to use them by 1985 are shown in Figure 14 as generally lower than the anticipated volumes on primary arterials. Some of the highest volumes expected are on those secondary arterials within the CBD; the lowest, as low as 1,000 vehicles per day or less, are anticipated for South Airport Road and Pattee Canyon Drive.

Collector Streets

The recommended transportation plan shows a network of collector streets. In developed areas, these streets follow dedicated rights-of-way, and in undeveloped areas, they are recommended for development in general corridors. Subdivision design and topographical limitations determine the exact locations of the latter category.

Travel Comparisons

Finally, the summaries of total vehicle miles, vehicle hours of travel, miles of roadway and average travel speed for the recommended transportation plan are shown in Table IV-2. The obvious conclusion to be reached from the comparisons is that improvement emphasis should be on the arterial street system. The freeway system is complete and the collector street system can receive attention as the need is indicated.

TABLE IV-2

1985 TRAVEL COMPARISONS

System	Length		Vehicle Miles		Vehicle Hours		Average Speed
	Miles	Percent	Number	Percent	Number	Percent	
RECOMMENDED PLAN							
Freeway	11.7	6.3	283,000	33.1	4,700	20.3	59.84
Freeway Ramps	3.2	1.7	5,900	0.7	200	0.9	38.43
Primary Arterials	47.3	46.1	497,400	58.3	15,300	66.2	32.42
Secondary Arterials	38.8						
Collectors	85.9	45.9	67,400	7.9	2,900	12.6	23.43
TOTAL	186.9	100.0	853,700	100.0	23,100	100.0	30.11

CHAPTER 5

THE CENTRAL BUSINESS DISTRICT

The word "downtown" conveys several meanings to the urban dweller, depending, of course, upon who he is and what he does. To the merchant, the word means competition, higher rent and a probable higher volume of sales per square foot of space, and possible spending by out-of-town shoppers. To an office worker, it connotes joining his colleagues in fighting the traffic to render business and professional services to the population. To the shopper, downtown is a wide selection of goods and a chance to compare brands and prices at retail stores within walking distance of each other. Together, these meanings give a working definition of the Central Business District, or the nucleus of employment and retail activity in an urban area. The economic success of the CBD mirrors the attractiveness of that area for investments as well as the economic well-being of the community.

This chapter summarizes the current situation within the Central Business District (CBD) of Missoula, estimates the changes likely to occur between 1965 and 1985 and projects the overall picture for 1985. Based upon these statistics and projections, the CBD Plan has been formulated and is shown in Figure 21 of this report and explained in the text.

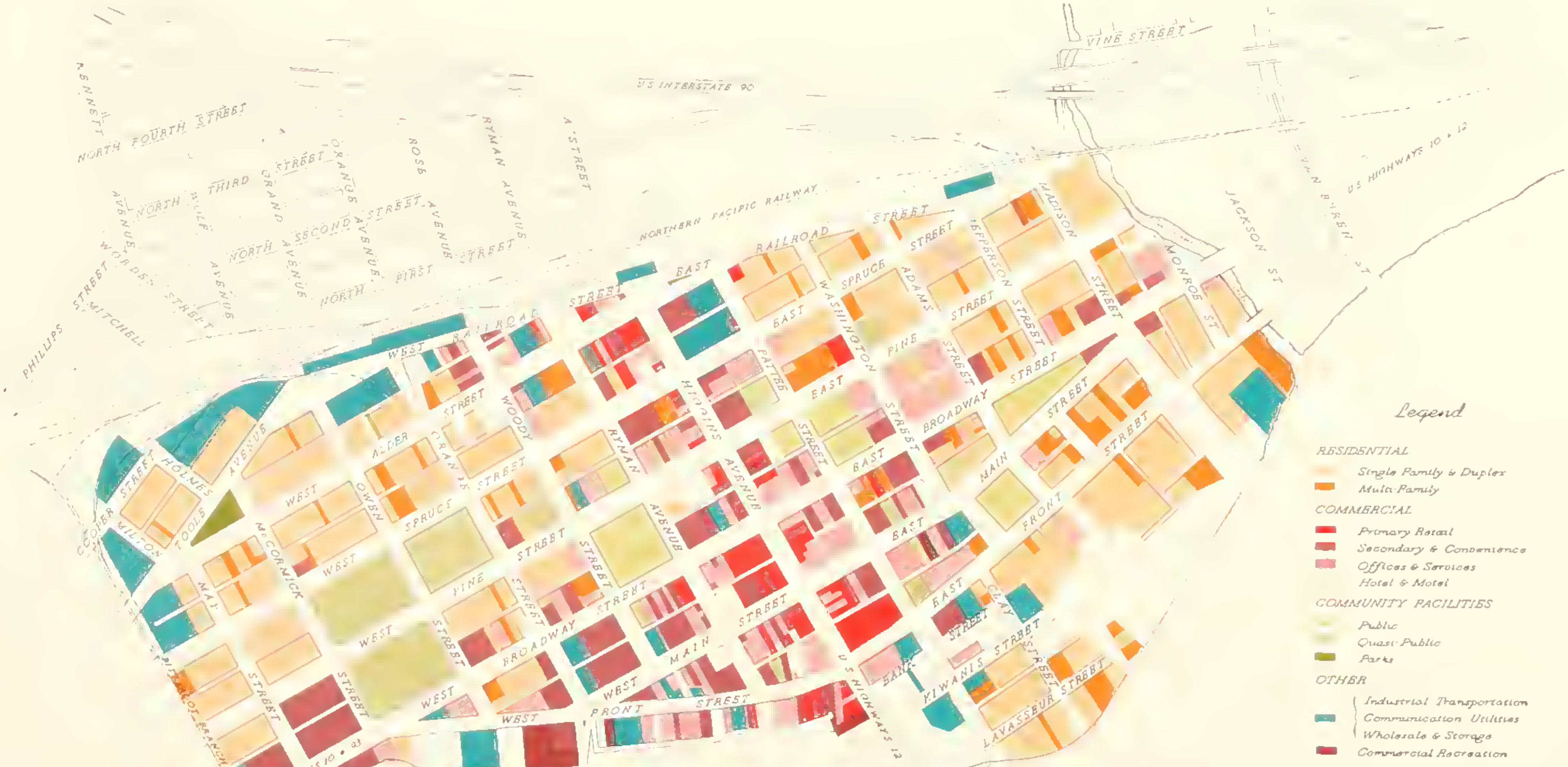
Existing Land Use in the CBD

The Missoula CBD contains 308 total acres of land, less than .5 percent of the Planning Area total. Fifty-six acres are in commercial use, or 16.6 percent of the total. Streets and alleys, using one-third of CBD land area, and residential, taking up another 23 percent, are the two predominant land uses. The CBD is restricted in growth with boundaries consisting of the Northern Pacific Railway on the north and west, Rattlesnake Creek on the east and the Clark Fork River on the south. The allocation of land by use in the CBD is given by acreage in Table V-1 and shown pictorially in Figure 15.

Condition of Structures

As Figure 16 illustrates, those blocks along the Northern Pacific right-of-way, and a few along the river, have the largest percentage of structures in below average condition. Although this percentage is generally from 50 to 79, it does run as high as 80 to 100 percent in those blocks between Harris and Ryman Streets along the railroad and between North Higgins and Washington along the riverfront.

CBD GROUND FLOOR UTILIZATION



Survey Year 1965

FIGURE 15

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TABLE V-1

LAND USE IN THE CENTRAL BUSINESS DISTRICT

Category	Acres	Percent of CBD
Commercial	51.3	16.7
Non-Commercial	122.9	39.9
Public and Quasi Public	24.9	8.1
Utilities	3.7	1.2
Industrial	13.8	4.5
Vacant	11.7	3.8
Residential		
Single Family	45.1	14.7
Multi-Family	17.4	5.6
Trailers	1.7	.5
Hotel - Motel	4.6	1.5
SUBTOTAL	174.2	56.6
Railroads	13.0	4.2
Streets and Alleys	100.5	32.7
Water Areas	19.8	6.5
GRAND TOTAL	307.5	100.0

The predominant commercial areas along Broadway, Front and North Higgins are the blocks with the fewest structures in below average condition, in some cases, less than one percent.

Land Values and Improvements

The CBD represents about 12 percent of the total assessed valuation of the City of Missoula, and is the most intensely covered with such City services as water, sewers, sidewalks, parking, street lights and fire protection. But CBD returns also carry a high proportion of the cost of City operations and the downtown businessman faces responsibility for continuation of City operations while trying to protect his investment.

Tax Valuation of Land and Improvements

The assessed valuations on land in the CBD are highest, with a range of $1.33 to $2.03 per square foot, in the commercial core ringing the intersection of North Higgins and Broadway and south to the Bridge. Low value land, primarily residential and ranging in value from $.04 to $.30 per square foot, is found on the northwest, north and east fringes of the commercial core. Valuations on improvements in the CBD have a range of $.27 to $10.62. High square foot values on improvements are common for blocks along North Higgins; lower values are found in residential areas. Figure 17 summarizes total values of both land and improvements for each block in the CBD.

Figure 18 shows improvement value as a percentage of land value. The comparison is valuable for pinpointing those blocks achieving full economic potential and those that are not. Ideally, improvement value should be several times land value in the CBD, despite high land costs, since a good return can be expected on improvements. The overall ratio in the Missoula CBD is 3.5 to 1. Generally, commercial core blocks exhibit the highest ratio through construction of additional stories to existing structures and other improvements designed to attract customers. This core in Missoula, however, with the exception of several blocks, has shown a low value of improvements on the most highly assessed land. The highest improvement ratios occur rather in the northwest and southwest corners of the CBD, where the assessed value of the land itself is quite low.

An indicator of the density of non-residential development, the ratio of floor area to ground area, is also shown in Figure 19. A figure of 1.0 means that the total floor area

CONDITION OF STRUCTURES

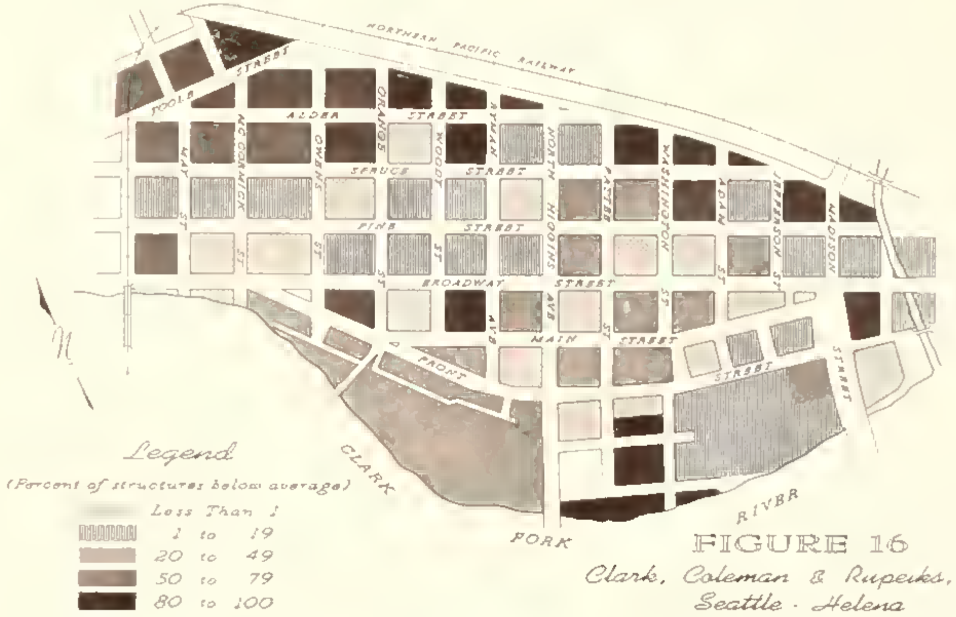

FIGURE 16

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RATIO OF IMPROVEMENTS TO LAND VALUES

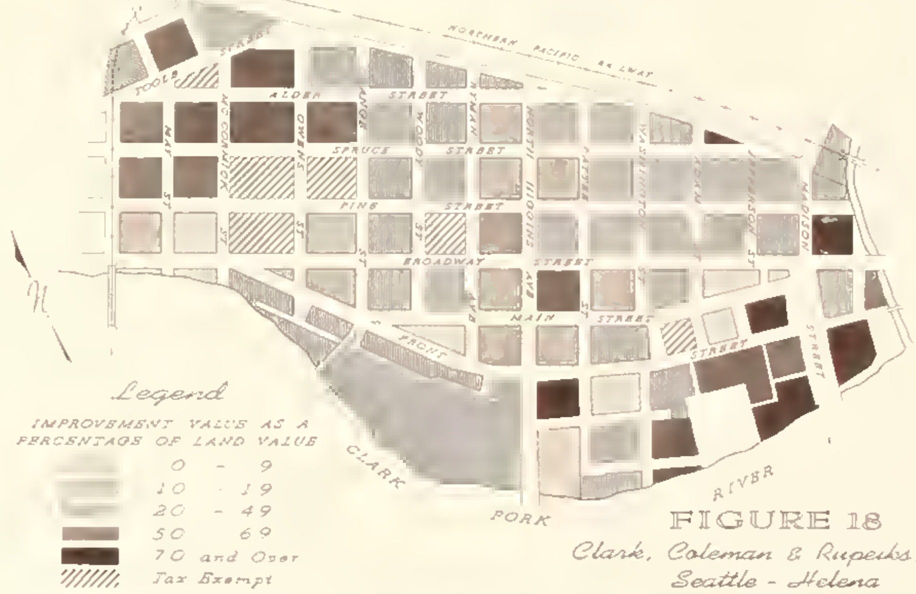

FIGURE 18

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LAND & IMPROVEMENT VALUES

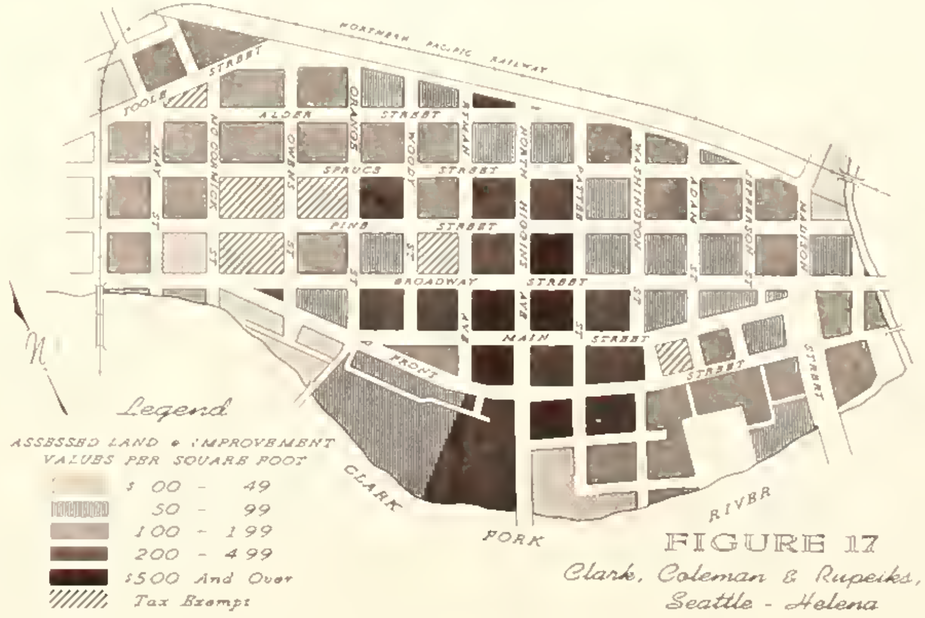

FIGURE 17

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FLOOR AREA RATIO

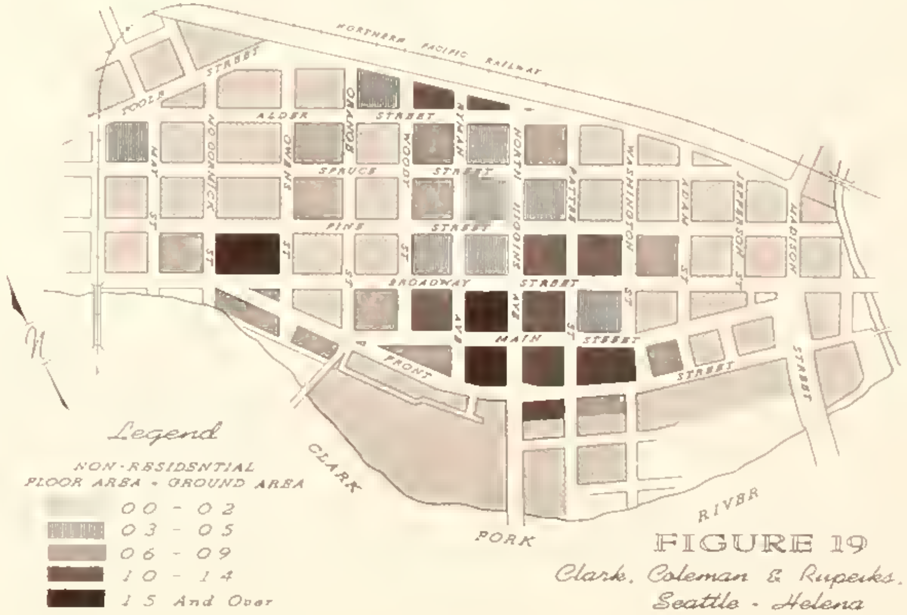

FIGURE 19

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of structures within a given block is equal to the ground area. In those blocks containing structures of two or more floors the ratio will be above 1.0, as is common for blocks in the commercial core. Intensity of development in Missoula follows the same pattern, with blocks becoming less developed the further away from the commercial core they are.

In summary, the total assessed valuation for the 90 blocks comprising the CBD is $7,223,230, or about $1.30 per square foot. Land, at approximately $.37 per square foot, is assessed at $2,047,035, while assessed value on improvements is $5,176,195 at $.93 per square foot.

CBD Retail Floor Space and Sales

Despite indications that improvements in the commercial area have not been in line with the high value of the land itself, the Central Business District of Missoula is still the City's center for retail merchandising. In face of a marked decentralization of retail activity in recent years, particularly along highway approaches to the CBD, the core area has retained the bulk of the Planning Area shopping facilities.

Almost 40 percent of the 1.8 million square feet of retail space in the Planning Area in 1965 was in the CBD, a total of 741,600 square feet. Of this, 277,270 square feet were included in the general merchandise, apparel and other specialty shops which constitute the primary shoppers goods category. The CBD orientation of this group is evident from the figures in Table V-2, showing that more than one-half of primary floor space is found in the core area.

More than one-half of the 1.1 million square feet of retail floor space outside the CBD was used by convenience goods outlets. These stores, catering to everyday needs, customarily locate close to concentrations of population. Less than one-fifth of Planning Area outlying space was devoted to primary goods.

Current Retail Sales Estimates

The 1963 U. S. Census of Business reported $78.9 million in retail sales in Missoula County, a gain of $18.6 million over the 1958 census figure.

The City of Missoula sold $70.6 million in retail goods in 1963; in 1958, City sales were $53.2 million. Both areas

TABLE V-2

1965 RETAIL FLOOR SPACE

	CBD	Outlying	Planning Area
General Merchandise	136,090	106,800	242,890
Apparel	54,390	35,830	90,220
Other	86,790	67,920	154,710
Primary Total	277,270	210,550	487,820
Furniture-Appliance	79,130	80,320	159,450
Automotive	130,570	172,510	303,080
Eating and Drinking	95,360	94,550	189,910
Secondary Total	305,060	347,380	652,440
Food	36,660	212,230	248,890
Drugs	20,960	34,560	55,520
Hardware	49,840	252,080	301,920
Service Stations	51,810	73,390	125,200
Convenience Total	159,270	572,260	731,530
GRAND TOTAL	741,600	1,130,190	1,871,790

drew trade from beyond their boundaries and that drawing power had increased during the five-year period. In 1963, outside trade amounted to $9.2 million in the County. In 1958, County merchants sold about $5.1 million more than was available from the County population for retail expenditures.

An estimated $74.6 million of the County's 1963 retail sales were in the Planning Area. By 1965, Planning Area sales had grown by $4.1 million. The CBD's retail outlets captured $34 million, or about 43 percent of the Planning Area's total. Table V-3 gives the estimated sales by category. Over one-half of the CBD's 1965 sales were in the primary category, about $18.6 million. General merchandise sales alone accounted for one-third of total sales. As is evident in the table, the CBD was responsible for nearly all of the Planning Area sales in the primary group.

TABLE V-3

1965 ESTIMATED RETAIL SALES[a]

	CBD	Outlying	Planning Area
General Merchandise	10,207	103	10,310
Apparel	2,013	1,351	3,364
Other	6,364	724	7,088
Primary Total	18,584	2,178	20,762
Furniture-Appliance	1,266	1,708	2,974
Automotive	4,439	9,786	14,225
Eating and Drinking	3,532	3,503	7,035
Secondary Total	9,237	14,997	24,234
Food	807	17,254	18,061
Drugs	1,195	908	2,103
Hardware	1,545	4,800	6,345
Service Stations	2,746	4,338	7,084
Convenience Total	6,293	27,300	33,593
GRAND TOTAL	34,114	44,475	78,589

[a] In thousands of dollars

Estimated 1985 Retail Sales

Assuming the current per capita disposable income and a constant 1965 dollar level, the 1985 residents of the total Planning Area will generate an estimated $103.5 million available for retail spending. Based upon analysis of past rates of available dollar attraction, total 1985 sales in the Planning Area are estimated at $112 million, or about $8.5 million over the amount available from the Area's anticipated population. Using current distribution of sales among the various categories, estimated 1985 retail sales are shown in Table V-4.

As travel time and traffic increase and as new competitive shopping centers are built, the sales attraction of the CBD is expected to decline slightly. As Table V-4 shows, the CBD sales are estimated at $43.8 million for 1985, a twenty-year increase of $9.7 million. Primary sales are anticipated to gain by almost $3.3 million for a total of $21.8 million,

TABLE V-4

1985 ESTIMATED RETAIL SALES[a]

	CBD	Outlying	Planning Area
General Merchandise	11,328	2,801	14,129
Apparel	2,822	1,836	4,658
Other	7,696	2,664	10,360
Primary Total	21,846	7,301	29,147
Furniture-Appliance	2,022	2,326	4,348
Automotive	7,321	13,897	21,218
Eating and Drinking	5,190	5,284	10,474
Secondary Total	14,533	21,507	36,040
Food	1,100	23,719	24,819
Drugs	1,331	1,743	3,074
Hardware	1,744	6,370	8,114
Service Stations	3,222	7,584	10,806
Convenience Total	7,397	39,416	46,813
GRAND TOTAL	43,776	68,224	112,000

[a] In thousands of dollars

TABLE V-5

1965-1985 RETAIL FLOOR SPACE CHANGES AND 1985 TOTALS[a]

	CBD		Outlying		Planning Area	
	Change	Total	Change	Total	Change	Total
General Merchandise	38,190	174,280	38,190	144,990	76,380	319,270
Apparel	16,170	70,560	16,180	52,010	32,350	122,570
Other	35,990	122,780	29,450	97,370	65,440	220,150
Primary Total	90,350	367,620	83,820	294,370	174,170	661,990
Furniture-Appliance	21,980	101,110	32,980	113,300	54,960	214,410
Automotive	52,450	183,020	122,370	294,880	174,820	477,900
Eating and Drinking	34,390	129,750	51,590	146,140	85,980	275,890
Secondary Total	108,820	413,880	206,940	554,320	315,760	968,200
Food	---	36,660	90,110	302,340	90,110	339,000
Drugs	3,240	24,200	12,940	47,500	16,180	71,700
Hardware	---	49,840	58,970	311,050	58,970	360,890
Service Stations	6,770	58,580	60,900	134,300	67,670	192,880
Convenience Total	10,010	169,280	222,920	795,190	232,930	964,470
GRAND TOTAL	209,180	950,780	513,680	1,643,880	722,860	2,594,660

[a] In square feet

nearly three-fourths of all Planning Area sales in that category. The estimated increase in secondary sales amounts to $5.3 million while little change is foreseen in convenience goods sales.

Estimated 1985 Retail Floor Space

An additional 722,860 square feet of retail floor space will be required in the Planning Area to sustain its expected sales. This estimate assumes a slightly higher productivity level than existed at the time of the questionnaire survey of retail merchants. The expected 1985 level, $46 per square foot, is about four dollars greater than the 1965 annual dollar productivity. Table V-5 gives the estimated 1965-1985 floor space change and the expected distribution between the CBD and outlying areas. A little less than one-third of the total increase is expected within the CBD; about one-half of the total primary floor space gain is expected there.

Table V-5 also gives the expected retail floor space 1985 totals by category. Of the nearly 2.6 million square feet likely to be required within the Planning Area, 950,780 square feet are expected to be in the CBD. Total primary floor space is estimated at 367,620 square feet in the CBD out of the 661,990 square foot Planning Area total.

CBD Employment and Floor Space Forecasts

The importance of the CBD as a retail trade center is enhanced by the large concentration of employment and non-residential floor space also found there. Almost 6,000 workers were employed in the core area in 1965, excluding employees in educational services, representing nearly one-half of total Planning Area employment. Non-residential floor space amounted to 2.5 million square feet, about one-third of the Planning Area total. As Table V-6 shows in its summary of current CBD floor space and employment, the downtown was particularly well represented in the retail, services and governmental categories.

The 1985 employment forecast for the Planning Area, as shown previously, includes an additional 9,100 workers, 7,665 of which will be in non-educational jobs. The CBD is expected to employ some 2,800 of the increase. The 1965-85 increase will probably be distributed heavily among the services, government and retail trade categories, as shown in the listing of employment increase by

TABLE V-6

CBD AND PLANNING AREA 1965 EMPLOYMENT AND FLOOR SPACE

	Employment[a]		Floor Space[b]	
	CBD	Planning Area	CBD	Planning Area
Construction	79	700	46	134
Manufacturing	243	2,000	114	1,155
Trans., Comm., Util.	677	1,400	75	493
Government	819	1,300	209	222
Wholesale Trade	113	525	51	450
Retail Trade	1,220	3,175	742	1,872
Fin., Ins., Real Estate	456	650	97	140
Services and Misc.[c]	1,480	3,050	1,145	1,630
TOTAL	5,087	12,800	2,479	6,096

[a] Excludes educational employment

[b] In thousand square feet

[c] Includes agriculture

major category in Table V-7. The details of employment by analysis zone are included in Appendix B.

The floor space required to sustain the estimated increase in CBD employment amounts to almost 1.3 million square

TABLE V-7

1965-1985 EMPLOYMENT CHANGES[a]

	CBD	Planning Area
Construction	41	280
Manufacturing	---	1,380
Trans., Comm., Util.	326	720
Government	614	785
Wholesale Trade	65	335
Retail Trade	460	1,525
Fin., Ins., Real Estate	285	580
Services	1,015	2,060
TOTAL	2,804	7,665

[a] Excludes educational employment

feet. With the exception of retail space, which was forecast independently, the estimates are based on existing employment densities, that is, square feet of floor space per employee. Overall employment density in the CBD amounted to 485 square feet per employee. Table V-8, giving the floor space additions required, is based on individual floor space density calculations. As expected, those categories in the CBD forecasted for the greatest employment increases will also require the largest additions in floor space.

TABLE V-8

ESTIMATED 1965-1985 FLOOR SPACE CHANGES AND 1985 TOTALS[a]

	CBD		PLANNING AREA	
	Change	Total	Change	Total
Construction	24	70	53	187
Manufacturing	0	114	796	1,951
Trans., Comm., Util.	36	111	253	746
Government	150	359	183	405
Wholesale Trade	29	80	287	737
Retail Trade	209	951	723	2,595
Fin., Ins., Real Estate	60	157	125	265
Services	785	1,930	1,100	2,730
TOTAL	1,293	3,772	3,520	9,616

[a] In thousand square feet

TRAFFIC CIRCULATION AND PARKING

The forecasts for non-residential floor requirements and retail dollar attraction in the Central Business District hinge upon two basic assumptions: that the businessman, the worker and the shopper will be able to reach the CBD with a minimum of delay and congestion and that, once reaching the CBD, a parking space can be found within a reasonable distance of final destination. Toward these ends, it is also desirable that through traffic not wishing to enter the CBD be provided with a means of circling the central area.

The rate of growth of the CBD, in economic terms, has been somewhat slower than that of the suburban commercial centers. Businessmen in the central area naturally seek tangible reasons for this relative decline so that remedies can be applied. The one-way operation of Main and Front Streets has received some of the blame, although the shortage of convenient and economical parking is seemingly more responsible.

Although some new development has taken place in the CBD, thus far, it appears as a number of unrelated projects. What is now needed is a definite course of action, a plan, integrating these projects to augment economic growth.

Current Traffic Circulation

The primary traffic carrying facilities in Missoula's CBD in 1965 were Orange Street, carrying upwards of 11,100 vehicles per average weekday; Higgins Avenue, carrying loads of between 11,800 and 15,900 vehicles on selected links; Madison Street, with volumes of 9,300 to 9,800 on the average weekday and Broadway, carrying between 10,000 and 12,500 vehicles per average day. At present, Broadway, Higgins Avenue and Madison Street are officially designated U. S. Highway routes and carry substantial amounts of out-of-area long distance traffic. Orange Street is part of the State Primary Highway System.

Other CBD streets perfrom more of a collector and local access street function. Those carrying the major traffic burden are Front, Main, Spruce, Ryman and Pattee. Front and Main operate as a one-way couplet between Orange and Madison Streets, Spruce Street functions as an east-west collector and Ryman and Pattee provide primarily local access to commercial and governmental establishments.

Parking

The parker interview survey provided the information on demand for, and characteristics of, parking. Parking characteristics such as approach and direction, accumulation, space usage, turnover, walking distance and parking meter revenues are vital inputs in relating parking demand to the available supply to determine deficiencies or surplus of parking. For convenience, facilities with a limit of three hours or less were labeled "short-term;" others were referred to as "long-term."

In 1965, the available supply of parking amounted to about 10-980 short-term space hours and 18,970 long-term space hours. Demand amounted to about 8,930 short-term space hours and 12,730 long-term space hours. Considering spacial relationships between supply and demand and parking characteristics, the four block area in the vicinity of Higgins Avenue and Main Street resulted in a shortage of 104 short- and 203 long-term off-street parking spaces.

Plan Framework and Elements

The traffic circulation system in the CBD should be composed of high traffic-carrying radial facilities for easy and convenient access, a peripheral loop for traffic wishing to by-pass the central area, and a distributor loop to carry traffic from radials and internal arterials to parking facilities. Well-located parking structures and lots should be available to shoppers and other short-term users. Outlying lots should be available for all-day parkers.

Radials. The radial facilities, introducing traffic from outside areas directly onto the peripheral loop, are parts of Interstate Highway 90, Duncan Drive, VanBuren Street, East Broadway, Arthur Avenue, Higgins Avenue, Orange Street, 5th and 6th Streets, West Broadway and Spruce Street.

Peripheral Loop. Encouraging diversion of through traffic and distributing CBD traffic the peripheral loop consists of the section of Interstate Highway 90 between Orange and VanBuren Streets, VanBuren-Madison Street, 5th and 6th Streets and Orange Street.

Internal Arterials. Providing direct routes from one side of the CBD to the other and supporting the peripheral system in peak travel flow periods, the internal arterials are extensions of the radial routes. These facilities in the CBD are Spruce Street, Broadway, Main Street, Front Street, Higgins Avenue and Madison Street.

Distributor Loop. The distributor loop connects to the peripheral loop by internal arterials, allowing for direct distribution of traffic to CBD sub-areas and to the parking facilities serving them. The distributor loop consists of Spruce Street, LeVasseur Street extension and Woody Street to Spruce Street.

Local Access Streets. All CBD streets not previously mentioned fall into this category, providing for direct access to individual properties and establishments. Flexibility of movement is provided by two-way streets and complete freedom of turning.

TRAFFIC CIRCULATION AND PARKING PLAN

Circulation

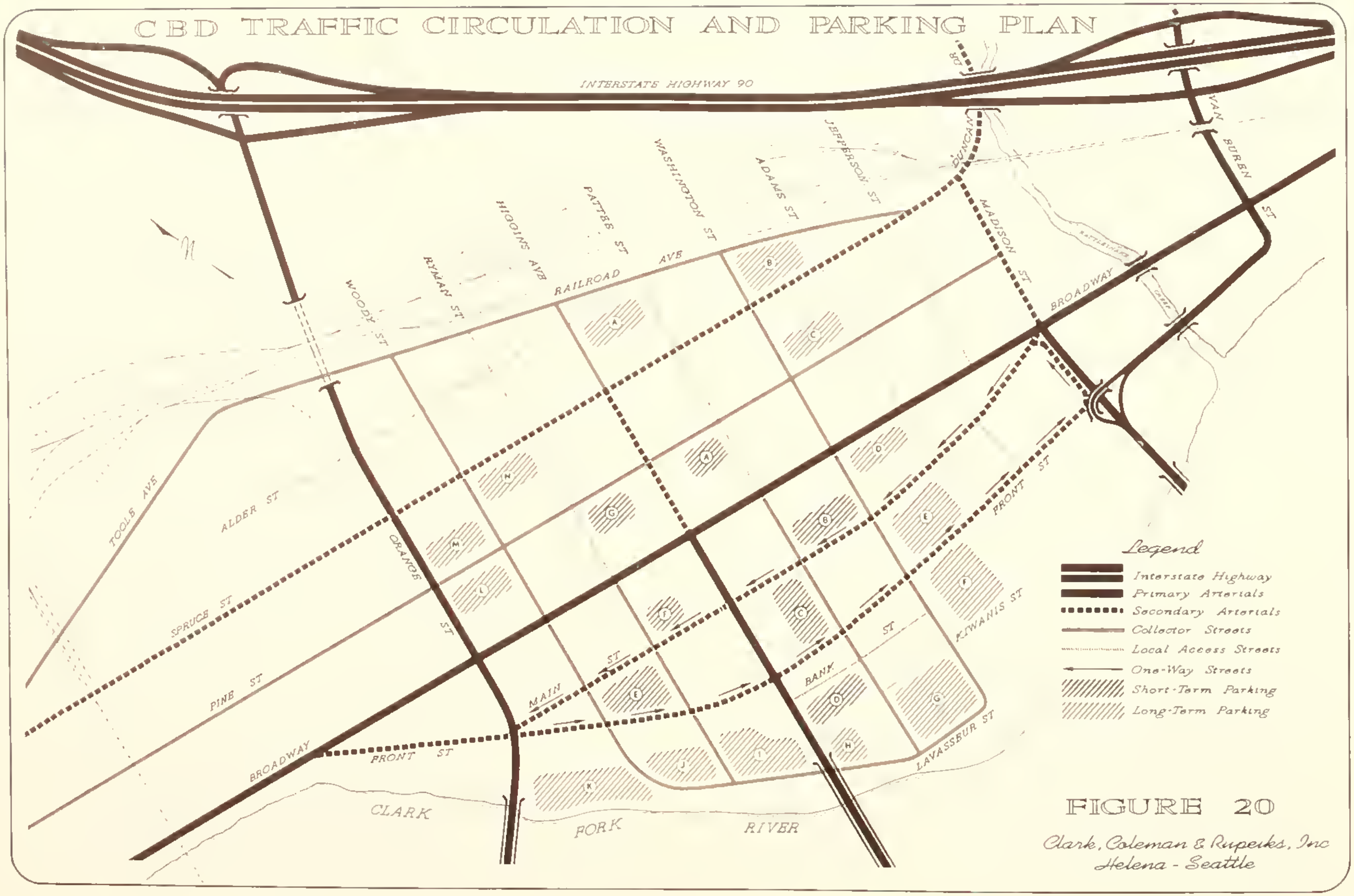
Although the existing street system evolved under different circumstances, it must be adopted to meet future needs with a minimum of new construction. The traffic circulation and parking plan has been prepared to provide the necessary moving and storage capacity for accommodation of estimated 1985 traffic volumes. These volumes are found in the inset of Figure 14 in the previous chapter. The traffic circulation and parking plan is shown in Figure 20.

Access to the CBD

Travel barriers imposed by the Clark Fork River, the Northern Pacific Railroad and the surrounding hills limit access to the CBD to a few well-defined and identifiable arterials.

Radials. One of the primary access routes is Interstate Highway 90, connecting with the arterial street system at the Orange Street interchange. This route is expected to carry 10,600 vehicles per day by 1985. Two additional radials are Spruce Street and Broadway, estimated to carry volumes of from 4,900 to 6,400 vehicles and from 8,400 to 14,000 vehicles per day, respectively. Access from the south is limited to the Orange Street, Higgins Avenue and Madison Street bridges, with respective anticipated 1985 volumes of 26,200, 18,600 and 13,300 vehicles per day. The 5th and 6th Streets one-way couplet, which could also be considered a radial route, has an estimated 1985 volume of 15,000 vehicles per day.

From the east, East Broadway is a major radial route with an estimated volume of 5,300 vehicles by 1985, as is Interstate 90, with an estimated 7,200 through trips per day stopping in the CBD. From the Rattlesnake Canyon, the two radial routes are Duncan Drive and VanBuren.



CBD TRAFFIC CIRCULATION AND PARKING PLAN

FIGURE 20

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Brayton Street, with 1985 traffic volumes of 8,400 and 8,200 vehicles per day, respectively.

Peripheral Loop. The streets proposed to constitute the peripheral loop, Interstate Highway 90, VanBuren-Madison Street, 5th and 6th Streets and Orange Street, provide efficient traffic distribution around the CBD, and traffic movement to points within the CBD from distance entry points.

The estimated 1985 per day traffic volumes along sections of the loop range from 14,900 vehicles on the Interstate Highway, to 32,300 vehicles on VanBuren Street, to 26,000 vehicles on the Madison Street Bridge, to 15,600 vehicles on 5th and 6th Streets, to 21,000 vehicles on the Orange Street Bridge, to 17,300 vehicles on Orange Street south of the Interstate Highway interchange.

Circulation within the CBD

Improvement of circulation in the CBD is usually achieved through application of traffic engineering measures, such as improved signalization, pedestrian control, removal of curb parking, channelization, one-way street operation and minor street widening. In Missoula, an additional measure is possible - that of constructing sections of new street, forming a distributor loop.

The circulation facilities within the CBD consist of internal arterials, the distributor loop and local access streets.

Internal Arterials. Spruce Street, Broadway, Main Street, Front Street, Higgins Avenue and Madison Street form the CBD system of internal arterials. Broadway, between Orange and VanBuren, will remain one of the most heavily traveled, although its capacity is limited to about 15,000 vehicles per day. Even to achieve this capacity, curb parking must be eliminated on one side and turn lanes installed at intersections. The parallel streets will assume a greater role once capacity limitations on Broadway are reached. Thus, the intersection of Main Street with Broadway and Madison Street should be channelized to improve westbound access to Main, and Front Street should be widened and extended east across Madison Street. Higgins Avenue, as an internal arterial, is expected to serve almost entirely CBD traffic, unlike Madison Street, where large amounts of non-CBD traffic can be expected.

Distributor Loop. This loop is formed by sections of Spruce, Washington, LeVasseur and Woody Streets. New construction and reconstruction within existing rights-of-way are required to make the loop workable. Some right-of-way is necessary to extend Woody Street from Main to LeVasseur

TABLE V-9

1985 SHORT-TERM PARKING SUPPLY, DEMAND, SURPLUS AND DEFICIENCY[a]

Anal. Zone[b]	1985 Supply	1985 Curb Loss	1985 Net Supply	1965 Needs	1985 Demand	1985 Total Demand	1985 Surplus	1985 Deficiency
01	497	72	425		666	666		241
02	513	108	405		667	667		262
03	1,122	108	1,014		1,147	1,147		133
04	1,137	151	986		558	558	428	
05	302	165	137	356	818	1,174		1,037
06	992	108	884	136	1,164	1,300		416
07	614	216	398		806	806		408
08	542	180	362		378	378		16
09	1,140	86	1,054		603	603	451	
10	238	79	159		84	84	75	
11	798	137	661		796	796		135
12	672		672		568	568	104	
13	611	259	352	211	947	1,158		806
14	805	94	711		881	881		170
16	867	101	766		1,321	1,321		555
17	127		127		28	28	99	
TOTAL	10,977	1,864	9,113	703	11,432	12,135	1,157	4,179

[a] In space hours

[b] See Appendix for analysis zone boundaries

on the waterfront, and realignment of Washington between Main and Front Streets is required to line up with Clay Street.

Local Access Streets. Good examples of local access streets, intended for maximization of vehicular access to establishments, are Ryman and Pattee Streets.

Parking

The parking aspect of the Plan is aimed toward a cooperative effort on the part of the City and CBD property owners to develop a system of strategically located off-street parking facilities to serve current and estimated future short- and long-term parking needs. The estimated 1985 short- and long-term parking supply, demand, surplus and deficiency are shown in Tables V-9 and V-10.

The recommended system of both types of parking facilities in the CBD is shown in Figure 20. The suggested parking areas only designate the general vicinity in which a facility should be developed. The exact type and size of the facility depends upon economic conditions prevailing at the time of implementation.

Short-Term Parking

The 1985 short-term off-street parking provided by full development of the recommended sites is shown in Table V-11. Six of the seven recommended sites are currently in some type of parking use.

The site labeled A is proposed for expansion east to include the land now occupied by the City Library. Site B, a half block now in parking use, is recommended for more intense development, as is site C, where land value suggests eventual construction of a multi-level parking structure. Sites D and E, now partially used by short-term parking facilities, are proposed for development to accommodate additional short-term users. Site F, currently vacant land, is too small to hold a complete structure, but could accommodate a partial, open structure. Finally, site G on the Plan should be expanded west to include the land now used by residences and all-day parking.

At full development, about 950 spaces can be provided in short-term, off-street parking in the CBD. To achieve this level of service, land should be acquired, and facilities developed, for about 660 spaces.

TABLE V-10

1985 LONG-TERM PARKING SUPPLY, DEMAND, SURPLUS AND DEFICIENCY[a]

Anal. Zone[b]	1985 Supply	1985 Curb Loss	1985 Net Supply	1965 Needs	1985 Demand	1985 Total Demand	1985 Surplus	1985 Deficiency
01	90		90	50	966	1,016		926
02	60		60		2,163	2,163		2,103
03	366		366		1,117	1,117		751
04	367		367		959	959		592
05	4,214		4,214		1,421	1,421	2,793	
06	780		780	248	1,035	1,283		503
07	225	43	182		907	907		725
08	1,577	115	1,462		1,420	1,420	42	
09	2,510		2,510		1,048	1,048	1,462	
10	1,298		1,298		1,086	1,086	212	
11	2,543	108	2,435		3,345	3,345		910
12	700		700		444	444	256	
13	210		210	1,314	1,148	2,462		2,252
14	670	187	483		1,130	1,130		647
16	3,148	1,511	1,637		2,557	2,557		920
17	216	216			16	16		16
TOTAL	18,974	2,180	16,794	1,612	20,762	22,374	4,765	10,345

[a] In space hours

[b] See Appendix for analysis zone boundaries

TABLE V-11

1985 SHORT-TERM PARKING NEEDS

	Number of Parking Spaces		
Facility	Full Development	Current Supply	Net Increase in Supply
A	90	61	29
B	140	39	101
C	260	44	216
D	120	75	45
E	180	9	171
F	50	---	50
G	110	64	46
TOTAL	950	292	658

Long-Term Parking

The estimated long-term, off-street parking needs for each of the sites suggested by the Plan are shown in Table V-12.

TABLE V-12

1985 LONG-TERM PARKING NEEDS

Facility	Full Development	Current Supply	Net Increase in Supply
A	130	91	39
B	170	6	164
C	130	45	85
D	110	13	97
E	233	---	233
F	193	---	193
G	306	---	306
H	80	80	---
I	130	130	---
J	110	110	---
K	130	130	---
L	130	9	121
M	130	4	126
N	130	7	123
TOTAL	2,112	625	1,487

Sites A and B are currently in long-term parking use and are suggested for further development in this use. Sites C and D now provide both long-term and short-term parking space, but are recommended for future development in the former use. The site labeled E is presently occupied by a medical facility, but plans have been made to relocate this facility, leaving the land available for partial redevelopment in long-term parking.

Sites F and G are suggested for development, as are sites H, I, J and K south of Front Street on the riverfront. The recommended development of the latter four lots supports those plans prepared for the waterfront calling for long-term parking in that area. Site L, currently in a combination of short- and long-term parking, and sites M and N are included in the Plan proposals for long-term parking development.

At full development, long-term parking can be provided in fourteen well-located facilities offering about 2,110 parking spaces. To give this level of service, the City and CBD property owners should acquire land and develop parking amounting to about 1,500 long-term off-street spaces.

If certain areas designated as long-term by the Plan become more practically used for short-term parking due to relocation of major traffic generators, the Plan is not irreparably damaged. At the new location, the long-term parking space converted to short-term parking will relieve demand for short-term parking in the former location. Overall, the balance between long- and short-term parking should be maintained.

The advantages of the Traffic Circulation and Parking Plan and the reasoning behind its recommendations become clear when the Plan is viewed in conjunction with the Land Use Plan for the CBD, shown and explained in the following section.

THE LAND USE PLAN FOR THE CENTRAL BUSINESS DISTRICT

The primary purpose of the Land Use Plan for Missoula's Central Business District is to guide development of the central area within a framework constructed through analysis of the present and forecast of future needs. Once the future demand for CBD land has been determined, the foremost duty of the Plan becomes the allocation of land and the establishing of a compatible system of usages whereby an efficient, attractive and prosperous business area can be developed. The end goal in Missoula is, of course, a CBD offering office space for the worker and accommodations for the visitor, attracting the dollar of the investor and of the shopper, and taking full advantage of the scenic setting in which it is located. The Land Use Plan for the CBD is shown in Figure 21 and is explained in the following sections.

Primary Retail

The existing pattern of primary retail stores is reflected by the recommendations in the Plan. The location of these comparison shoppers outlets in the blocks bordering North Higgins from north to south, and concentrated in the four-block intersection of North Higgins with Broadway, encourages the pedestrian traffic essential to the success of this type of store.

On the east-west axis, primary outlets should be located on Front Street from Higgins to Washington. The Plan also suggests that the block bounded by Front and Main Streets and west of Ryman Avenue be converted to primary retail use. The block is now largely used by secondary and convenience outlets with smaller spaces in services and industrial use and vacant. The corner of Pattee and Broadway, now taken up by multi-family residential units, is also suggested for future primary retail expansion by the Plan.

The major difference between the existing case and the proposals of the Plan in regard to primary retail is a matter of size. That is, the forecasted expansion of primary outlets and the necessity of having these units in close proximity to each other requires relocation of other uses, notably secondary and convenience retail and industrial, to blocks outside the core.

Secondary and Convenience Retail

The Plan recommends that these auto-oriented outlets be located on the periphery of the core or near residential blocks. One exception to this is the northwest corner of the Broadway-Pattee intersection in the core area recommended for retention. South of the core, the Plan proposes secondary and convenience space in those approximate areas now in such use and on that corner of Pattee and East Front now occupied by industry. West of the core, the Plan suggests retention in secondary and convenience use the two blocks bordered by Ryman, Main, Harris and Broadway and for those bounded by Broadway, McCormick, Pine and May, excepting the one-half block in residential use as shown in the figure.

The secondary and convenience area suggested north of the core, bordering the Northern Pacific right-of-way, would

CBD LAND USE PLAN

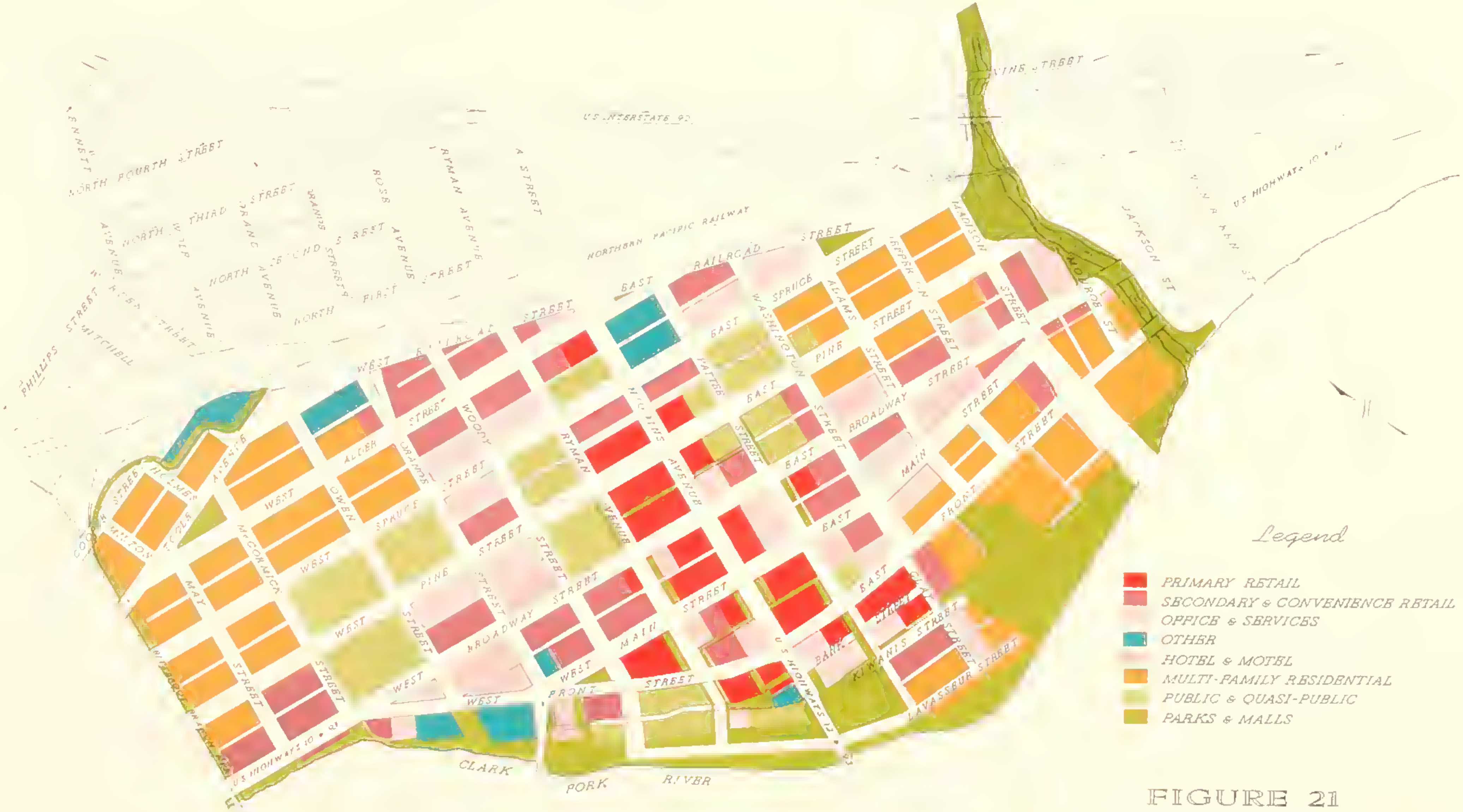


FIGURE 21

Clark, Coleman & Rupeiks, Inc
Helena-Seattle

provide the additional space required for this use. Currently, large areas in these blocks are in either wholesaling and storage or residential use.

In the western half, those blocks proposed for secondary and convenience retail usage currently have small portions so occupied. The expansion of these units, in most cases, reduces the amount of land in residential use.

Offices and Services

Within the core area of the CBD, the Plan suggests that the two major areas currently in office use be kept as such. Other proposed locations are along Spruce Street between Adams and Pattee, and between Ryman and Harris. In both cases, the land is now largely used by single-family residential units. The same is true of that land recommended for office and services use along Pine between Woody and Owens. Two smaller proposed areas, shown on the figure, near the intersection of Front and Broadway, preclude industrial use and fill currently vacant land. The two areas proposed in the south CBD would also fill largely vacant land.

Hotel and Motel

A comparison of existing land in hotel or motel use with that proposed by the Plan in Figure 21 shows that basic locations are the same. The entire blocks bounded by Broadway, Front, Owen and Harris and by Broadway, Harris, Pine and Woody, currently in a variety of uses, are also proposed for hotel or motel use. Visitor accommodations are also suggested for the eastern corner of the Front-Harris intersection rather than the wholesaling use to which it is now put. The five blocks along East Broadway in which motel or hotel use is recommended pre-empts use by residential units and convenience outlets. The three areas in the core now used by hotels or motels are proposed to continue in that use, as is the southeast corner of the Pattee-Main intersection.

Residential

The Plan advises that CBD residential land be in high density, multi-family use. The basic reasons underlying this proposal are three: the demand for core space by primary retail and the subsequent removal of other uses to outside blocks; the increased demand for multi-family residential space accompanying the expected gain in population; and the simple fact that the restrictive boundaries of the CBD mean that any growth must be up rather than out.

Residential use is proposed for nearly all the northwest part of the CBD. In three blocks, two on the western end of Toole Avenue and one on the eastern end, conversion to residential use will replace the wholesale and storage facilities now present. Multi-family residential use is also recommended in either all or part of the six blocks fronted by Washington, Broadway, Madison and Spruce, and in the southeastern corner of the CBD.

Public and Quasi-Public

Four full blocks, all fronting Pine Street, are currently in this use category in the western CBD. Two of these are occupied by parochial schools, one by St. Patrick's Hospital and the other by the County Courthouse. The Plan suggests that a fifth such block, now occupied by the fire station, some industry and the remainder in residential, be the location for a new City Hall. That block is on Pine between Woody and Ryman. Also recommended for public use are the waterfront land between Woody and Ryman for a library and cultural center, and the block between Washington, Spruce, Adams and Pine for federal office space in addition to that currently found across Pine Street. The latter block is currently one-fifth in public use with the remainder in residential.

The southern half of the block formed by the intersection of Ryman and Higgins with Spruce is presented as a location for the post office. The block is currently in retail, residential, services and hotel-motel use. Those portions of blocks currently containing the Knights of Columbus hall, the Community Hospital, and the Church of Christ are proposed for retention in public use. The portion of the block containing the library at present is suggested for public use, offices or off-street parking.

Parks and Malls

A major park proposed for the CBD is on the waterfront between the Orange and Madison Street bridges. Kiwanis Park should be retained and become an anchor for the riverfront park development. Parks are also suggested in the triangular sections of land formed by the intersections of Toole and Alder, East Railroad and Alder, Railroad and Spruce, and Broadway and Front.

Missoula's downtown has been a focal point and gathering place for the people from a large region. This historic fact should be given even greater emphasis in future CBD development. Provisions have been presented for proper vehicular circulation and parking. It is also important that the pedestrian be provided with a convenient and pleasant system by which he can circulate between shops, offices and parking facilities. The desirability of being in the CBD, whether in daytime or at night, must be enhanced.

To reach this goal will require a variety of programs including improvements in merchandising, displays, pricing and selling. A complete shoppers mall was recommended on Main Street but received little local support. This Plan provides a workable alternative to a full mall in the form of a pedestrian "loop" for the lower core area. The Plan recommends the improvement of the east-west alley south of Main between Ryman and Pattee as one leg of the pedestrian walkway. The east and west legs would be "boulevard" improvements on Ryman and Pattee leading south to connect with Island Park as the southern leg. An inner "loop" is almost completely available at the present time by utilizing the two covered walkways in the Arcade Building and providing stairs or an escalator to the courtyard behind the Wilma theater. The implementation of this proposal would create a pedestrian-oriented loop system between present and future concentrations of primary stores, parking areas, offices and convention and cultural facilities.

The major green areas, or buffers, recommended are along the entire Clark Fork Riverfront and along the western side of the CBD to separate residential blocks from the railroad tracks. The remaining green areas suggested are along Rattlesnake Creek and around the core area as shown in Figure 21.

Other

This category, including industrial, wholesaling and transportation, communications and utilities facilities, is proposed to account for a limited share of CBD land. The main area reserved for industry is that currently occupied north of the intersection of Holmes Street and Toole Avenue. A green buffer is suggested to separate this area from the adjacent residential development.

The northern half of the block bounded by Owen, Harris and Railroad Streets is proposed for wholesale and storage use.

The block enclosed by North Higgins, Alder, Pattee and Spruce is currently used by industry, secondary and convenience retail and warehousing. The Plan proposes that the bus terminal be located in the northwest quarter of this block and that occupancy by the local newspaper and the warehouse use be retained as such. The railroad depot and warehousing along the tracks are recommended for retention, separated by green buffers in any area neighboring residential use.

Summary

The Plan proposes, with regard to retail, that primary retail land be concentrated in the core area to encourage pedestrian comparison shoppers and that other retail land locate on the periphery of the core where it is more accessible by automobile. Office space is generally recommended either within the core or interspersed with secondary and convenience retail on the rim of the core.

Transient accommodations are suggested in the approximate locations they are now found, but the amount of land used by hotels and motels in those areas is greater. Blocks currently in public or quasi-public use are retained; additional such space is recommended by the Plan in blocks in close proximity. One exception is the community center-library complex proposed for the riverfront.

All residential land is proposed for the multi-family type and is found on both the eastern and western sides of the CBD. Parks, pedestrian ways and green buffers are shown by the Plan filling vacant land, separating non-compatible, or linking compatible uses, and lining all waterfronts.

As has been shown in a previous chapter, industrial use is largely excluded from the CBD and recommended rather in another location. Three of the most obvious reasons for this Plan proposal are the desire of citizens to beautify the waterfront, the tendency of industry to be incompatible with other land uses, and the demand for additional land by uses more suitably located in the CBD.

CHAPTER 6

COMPREHENSIVE PLAN AND IMPLEMENTATION

The Comprehensive Plan for the Missoula Urban Area, shown in Figure 22, is a synthesis of the various detailed components which have been systematically covered in the chapters dealing with population and economy, the uses of land, community facilities, thoroughfares and the Central Business District. Many studies and investigations have been utilized in the preparation of this report. The Comprehensive Plan can also be viewed as the composite of numerous local projects.

The Missoula Planning Area has its own set of unique characteristics, and the Plan recognizes and capitalizes on the favorable physical, economic and social factors. Although possessing many assets, the Planning Area is confronted with a number of serious problems, requiring concerted community effort if they are to be resolved. The Comprehensive Plan has provided complete solutions to some of the problems, identified and partially resolved others and indicated some areas of concern which, because of the scope of this assignment, cannot be completely resolved in this report or at this time.

This Plan is not just the work of the local planning staff and the consulting firm. Preparation has been a joint team effort, with innumerable citizens of the Missoula community investing large blocks of their volunteer time and effort. Many citizen groups have assisted the professional planners by providing them with a set of community goals and development policies. A preliminary Comprehensive Plan was presented to the community through its City-County Planning Board in November of 1966 and was scrutinized, checked and modified for approximately three months before being returned to the consultants in a form providing a basis for the preparation of the final Comprehensive Plan.

In any community development plan or program there are a series of actions, reactions and interactions which must be taken into account. The Land Use Plan cannot be prepared independently or without full consideration of the Major Streets and Highways Plan or the Community Facilities Plan. These three basic elements must be woven together. For example, the construction of a new primary arterial in the suburban area or a new bridge across one of the two major rivers will have a considerable effect upon the lands within the vicinity of the constructed facility. Vacant land or that utilized for agricultural or even single-family purposes will soon feel the effect of the arterial or bridge in terms of added traffic, higher land values, more exposure to the general public and other important factors.

During the next few years, each functional area covered by the Comprehensive Plan will undergo tests and challenges, realizing in the community a group of opponents as well as proponents. Friction will occur in terms of potential developmental changes affecting the Central Business District, riverfronts, arterials, apartment house areas, schools and parks, parking, industrial development, outlying shopping areas and new subdivisions. Implementation of the recommendations and plans contained in this report will require concerted effort by both public agencies and numerous private groups and individuals. Public agency support must come from several avenues including adoption of the Comprehensive Plan, adoption and enforcement of subdivision regulations, enforcement of the zoning ordinance, utilization of both private and public urban renewal programs and the preparation and adoption of a Capital Improvements Program.

Between 1965 and 1985, the Missoula Planning Area will undergo numerous changes. Although surrounded by steep slopes and mountainous areas, the basin which contained 46,430 people in 1965, is expected to grow to contain a population of 73,500 people by 1985. Although considerable land will be consumed during the intervening years, there will still be enough developable land to contain a total of approximately 202,300 people in the jurisdictional area at the time of full saturation of all developable lands at current or proposed densities. Employment should increase from 15,200 in 1965 to 24,320 persons by 1985. With the new employment opportunities and the resultant growth in population, the number of dwelling units in the Planning Area is expected to increase from 14,626 to about 23,370 by 1985. The growth anticipated in Missoula will benefit the community, but will mean an even greater responsibility on the part of the community to provide additional services to the present residents and businesses as well as those still to arrive. With nearly one-fourth of the 12,000 structures in the Planning Area currently rated "below average" or "poor," the community must embark on a strong program of structural rehabilitation or redevelopment.

Approximately 1,366 acres will be consumed by new residential development alone. This will require good design on the part of subdividers and the enforcement of sound subdivision regulations if the problems of inadequate utilities, wasteful grid pattern system and other problems plaguing the community from some of the plats in the near southwest are to be avoided. Missoula will also realize a change from predominantly single-family homes with considerable additions of duplex units and apartments near the Central Business District, immediately south of the Clark Fork River and near the University.

Suburban residential development at a density of less than two dwelling units per acre will occur primarily at the outer edges of the Planning Area in such specific locations as westerly on Mullan Road, up Pattee Canyon and in the Miller Creek area. These areas currently have few, if any, homes and are either vacant land or used for agricultural purposes. Although there was some local inclination to designate the Mullan Road area for industrial purposes, this appears to be an undesirable use of the land since land to the north of this area around the airport and railroad would better serve industrial purposes. Furthermore, the land along Mullan Road to the west of the Chicago, Milwaukee & St. Paul Railroad has small rolling hills and some fine views, making it desirable suburban residential property and also providing the future head of the household with convenient access to employment in the industrial areas. By 1985, a small portion of the Mullan Road district could have as many as 100 dwelling units and nearly 300 people with a total holding capacity of approximately 645 dwelling units. Miller Creek is an additional area that will realize urban development at a suburban density between now and 1985. Although quite distant from many community facilities, the Miller Creek area is proving to be a desirable place for suburban development, expected to continue at a rather slow rate until facilities and utilities are provided in the area. There is a possibility that by 1985, the population in this locality may require an elementary school. Harmonious development will occur in these areas if subdividers are guided by sound regulations and prepare subdivisions with the proper installation of roads, facilities and other amenities.

Moving approximately one ring closer to the core of the community, residential development is anticipated at a low density of between two and four dwelling units per acre. Four such localities are the Rattlesnake, Target Range, Cold Springs and Grant Creek areas. The northwestern portion of the Rattlesnake area covers 3,748 acres, of which 850 acres are vacant and buildable. Currently there are 210 dwelling units in this area and by 1985, could hold nearly 1,800 people. At saturation the buildable land in this locality could accommodate approximately 2,400 dwelling units. The Target Range area covers 403 acres, of which 220 acres are vacant and buildable. At the present time, there are 130 dwelling units and another 170 dwelling units are expected by 1985, bringing the total population of the area to about 1,100. At full saturation, this area could contain about 1,450 dwelling units. The Cold Springs area covers 2,275 acres, of which 1,051 acres are vacant and buildable. Presently there are 240 dwelling units in the area and by 1985, there could be a total of 475 dwelling units containing about 1,850 people. At saturation the area could contain 2,700 dwelling units. The current development pattern, which in all three of these areas is between 3.0 and 4.5 dwelling units per acre, is expected to continue; therefore, the designation on the Land Use Plan at the low density. The best guide for future development is the practice of enforcement of sound subdivision regulations since little zoning conflict is anticipated in these areas. The Grant Creek area shows little development presently, but has a developable terrain with pleasant views, is near industrial employment opportunities and, though quite far from the downtown in terms of miles, is relatively close because of its immediate access to the Interstate Freeway. Of the nearly 2,000 acres in the Grant Creek area, approximately 425 acres are buildable and could contain several hundred people by 1985, with an ultimate saturation of about 750 dwelling units.

Much of the medium density single-family residential development of five and six dwelling units per acre occurs at or near the present corporate limits. Two localities in this category are the Franklin area in the southwesterly portion of the City and the Prescott area by Rattlesnake Creek and just to the north of the Interstate Freeway. These two areas together contain a total of approximately 1,050 dwelling units and a population of approximately 3,500 people. There are only a few acres of vacant developable land remaining and the current densities average 5.7 dwelling units per acre. There will be some infilling, some conversion and some redevelopment because of older homes in these two areas by 1985. It is projected that by 1985, the Franklin area will contain 715 dwelling units and a population of 2,430 people. The Prescott area is expected to have approximately 500 dwelling units by 1985, containing 1,695 people. With the exception of some multi-family units near the Freeway and near the major arterials, little density change or zoning problems are anticipated.

The highest density of single-family residential development will maintain an average of between eight and nine dwelling units per acre. It is anticipated that the building type in these areas will consist of single-family homes on small lots and, depending on the future revision of the zoning ordinance, perhaps some duplex units and mobile home parks. This land use category can be considered as a transitory zone between single-family and multi-family residential areas and also as a buffer between non-residential land uses and the more prevalent low and medium single-family residential areas. Two examples of development of this type occurring in the future are the Dickinson area west of Russell Street and a band approximately 1,000 feet wide extending south from Bud Lake Village along the westerly side of Sugarbeet Lane wherein there currently exists a mobile home park. Existing development in these two localities approximates the proposed density range for high density single family areas. These two areas presently contain 236 dwelling units and by 1985 could have a total of 500 dwelling units. At full saturation, these two localities could contain approximately 2,600 dwelling units. Both now have such amenities as nearness to places of employment, major arterials and shopping and schools. The developed portions of these two localities are at fairly high densities and it is anticipated that this development trend will continue. To ensure good development in the future will require sound zoning enforcement, good subdivision design with adequate installation of roads and utilities and imaginative design coupled with proper review of proposed mobile home parks.

The vast majority of multi-family structure development will occur near the center of the community in close proximity to the Central Business District, between the Central Business District and the industrial development to the northwest, in close-in areas to the south of the Clark Fork River and across from the downtown and near the University and perhaps along the the toe of some of the mountain slopes at the eastern edge of the urban area. Three localities which either presently have, or will realize in the planning period, the development of medium density multi-family structures are the Lowell and Roosevelt localities and those central areas where extensive lands are being utilized for commercial or industrial purposes such as the Intermountain Lumber Company tract. Some apartments presently exist in the Lowell and Roosevelt areas and more are to be expected. These areas, because they do contain older structures, still have many urban amenities and are convenient to arterials and to the downtown, shall realize the majority of apartment development during the next decade or two. There will be an increasing need in Missoula for multi-family structures of all types from duplexes through the range to high-rise apartment houses. These apartments will serve a growing proportion of Missoula residents and can be an asset to the community. Proper zoning must be utilized to assure proper location in some older areas and an urban renewal program may prove to be the answer, but perhaps in the final analysis, good site planning and sensitive architecture will be the insurance keys to multi-family development that is a long range asset to the community.

The growth of population in the Missoula area will necessitate considerable added public facilities. Public school enrollment alone will require a good portion of the 1,875 additional acres needed by public and quasi-public facilities by 1985. The public school enrollment which was 11,383 pupils in 1965, is expected to grow to 17,805 pupils by 1985, requiring ten new elementary schools and at least two new senior high schools. Additional park areas, fire stations, utilities and public buildings must be developed by 1985. If urban blight is not to spread, Missoulans must recognize and preserve two important natural assets to their heritage, namely, the impressive scenic values of the slopes and wooded mountains, and the Bitterroot and Clark Fork River valleys and frontages. The community has taken admirable steps in starting to improve the Island Park area, but additional initiative must be taken to preserve and improve the Hellgate Pass and Hellgate Village scenic and historical areas.

Although each land transaction involving a change in ownership and/or a change in use usually produces some degree of concern in a community, land for future community facilities, especially for schools and parks, usually creates the least amount of concern. As with all generalities, there are two or three exceptions in Missoula where public action (or lack thereof) may cause local concern. The growth of the Missoula County Airport is likely to have certain repercussions. With increased air traffic, and with the probability of additional commercial and feeder lines, growth of the physical facilities at the Airport is inevitable. Any aircraft has certain built-in hazard potential and this is true of today's jet. There is already conflict in terms of the main northwest-southeast runway and its approach zone with the Hellgate Elementary School. The Hellgate School Board should give serious consideration to future relocation of the elementary school. Directors of the Airport's expansion should be guided by their master plan, as well as by the Comprehensive Plan for the community, to ensure adequate future clear zones. Private developers should recognize airport growth and future clear zones and develop primarily between runway alignments. The Fort Missoula area is another locale which will undergo examination and considerable development within the next few years. Although to many there appears to be more than enough public land in the Planning Area, there will be an increasing utilization by the general public in future years, especially with the population growth which is forecast by 1985. Programs for the development of the Catholic High School, the community hospital and perhaps a multi-purpose sports complex at the Fort are excellent. None of the publicly-owned land at the Fort should be sold for private development purposes. Rather than selling any publicly-owned land in the Planning Area, the community should look to an accelerated expansion program of land acquisition for public purposes before the sites are misused or become prohibitively expensive. One such area that should be saved is the Hellgate Pass area between the Clark Fork River and the Interstate Freeway. This Plan recognizes additional growth of commercial facilities at the Eastgate area and allows approximately five to ten acres for such future commercial growth. Complete commercialization of the strip between the VanBuren and East Missoula interchanges may well prove commercially uneconomic, but of greater importance is the loss of this asset of rare historic and scenic value to the community. Local, state and federal aid (such as the Bureau of Outdoor Recreation) should be enlisted to preserve and enhance this area for future generations to enjoy.

During the ensuring decade or two, industry in the Missoula area will come more diversified. The basic nucleous of industrial development already exists in the community in the northwesterly quadrant. Because of the topographical profile of the community and the prevailing winds, it is unfortunate that industry developed in the northwest rather than to the east of the community, but this trend undoubtedly will continue and sufficient acreage for industrial development for several decades to come has been provided along the Northern Pacific Railroad and near the County Airport. By 1985, it is expected that industry, transportation, communications and utilities will consume another 626 acres totaling some 1,725 acres of land by 1985. Here, too, the community must insist upon a high quality of industrial development and, certainly, must adopt and enforce meaningful air and water pollution control standards.

The locale where the major amount of frictional concern over industrial development probably will occur, will be in the northwest sector of the community. There must be a firm zoning policy established with regard to petitioners who will appear desiring rezones to commercial or industrial designations. As has been stated earlier, some elements in the community could see the entire northwest quadrant north of the Clark Fork River as developing for industrial purposes. This is not only economically unlikely but would be most undesirable inasmuch as there is a great deal of land which is suitable for residential development and it has been shown several times in the projections that enough land has been set aside for industry to more than serve the community needs for several decades to come. All industrial developers should be required to follow a set of performance standards in order to minimize any adverse effect upon the community. The Plan provides adequate land for both light and heavy industries and several industrial parks have already been platted or are on the drawing board. Industry will find unique assets in the areas designated for it because of the immediate availability of air, rail and freeway transportation facilities. Because of the concentration of industrial development and employment, there undoubtedly will be periods of future traffic congestion and, therefore, the total community should develop a policy of encouragement to industries that could locate to the east of Missoula in the Bonner locale.

Coupled with the other facets of increasing urban development, streets and arterials in addition to those currently in existence must be provided in the future. In 1965, there were over 119,000 vehicle trips made which are expected to grow by nearly 90 percent to a total of 225,000 vehicle trips by 1985. Even the number of trips made per household will increase from an already high level as members of the family journey to school, shopping and to work. As growth continues, additional river crossings will be needed to handle trips to and from the downtown and for the growing suburban areas to the south and southwest and growing industrial centers in the northwest. Land consumed by new streets and highways by 1985 will undoubtedly exceed an additional 1,000 acres. Areas of friction must be anticipated in the southwest as Reserve and South Streets become increasingly important arterials.

The area of plans for future traffic which has probably received more discussion in the community than any other is the arterial system to and around the University of Montana. There was considerable analyses and study given to the two basic alternatives, namely, the loop to the east of the University at the base of the mountain, and Arthur Street. For the time being, the community has made the decision that the Arthur Street arterial shall be developed to handle the projected growth in traffic volumes. Only time will prove the wisdom of this local decision, but there are repercussions which must be anticipated. Parts of the blocks abutting Arthur Street have already undergone some transition from single-family residential development to multi-family units with some commercial facilities. This transitional trend will be accelerated as Arthur carries additional volumes of traffic. As the Plan indicates, the community should hold to multi-family development along the frontages of Arthur and limited additional commercial development. It will be difficult to preserve the amenities of the blocks to the west of Arthur, for traffic volumes will be considerable not only on Arthur but on several routes to the west of Arthur, and there will be pressure for non-compatible uses to intrude into these stable residential blocks. Planned arterial improvements and a strong zoning policy are the two best ingredients for the preservation of this general locality.

Finally, the role of the Central Business District cannot be stressed too highly. As the community grows, room for expansion must be made available in the downtown area. The community is already considering the possibility of utilizing a federal aid urban renewal program and this possibility should be explored further. There will be additional outlying shopping centers, but for the most part these should be contained to neighborhood facilities of three to six acres to functionally serve the adjacent neighborhoods, while not competing directly with the Central Business District. This can be accomplished by proper enforcement of the zoning ordinance. It is expected that an additional 203 acres of land will be consumed by all commercial uses by 1985, bringing to a total in that year of land used by commercial functions to 538 acres. Downtown circulation and parking must be improved also. Parking in the Central Business District had a space hour demand in 1965, of 21,665 hours which will increase some 48 percent by 1985 to the demand for 32,194 parking space hours. Revitalization of the Central Business District has already commenced but much remains to be done.

As indicated earlier, in the portion dealing with industrial development, there will be speculators petitioning for changes to commercial zoning. These rezone requests may vary in size from a single lot to as much as 30, 40 or 50 acres. There is an established local, regional and national relationship between size of the population, the amount of dollars that can be expended for commercial goods and services and the floor area and land requirements to serve these needs. All of these factors have been carefully analyzed in the preparation of the Comprehensive Development Plan and adequate land has been planned for future commercial purposes to serve the community more than adequately to 1985. Inasmuch as the Central Business District serves as a regional shopping center, even a growth to 73,500 people in the Planning Area by 1985 cannot sustain another regional-sized facility and it is doubtful with the development along the present Highway 93 and at Eastgate that even another community-sized shopping center can be justified. Therefore, quite logically, the plan proposes a few additional neighborhood facilities ranging from three to six acres in size to serve either the existing or the future neighborhood need for convenience goods and services. To preclude indiscriminate commercial zoning, the zoning board should require the submittal of a detailed plan and a professionally prepared market analysis before they will consider any petition to rezone acreage for commercial purposes.

In summary, the plans and recommendations are provided, and to the community falls the task of acting in concert between private and public interests through the various means available, to implement the elements of the Comprehensive Development Plan for Missoula.

APPENDIX

1965 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT

Zone	Dwelling Units	Population	Students		Employment			Employment Total
			Elem.	High School	Comm.	Gov't.	Other	
1	0	0	0	0	211	1	7	219
2	0	0	0	0	277	9	142	428
3	20	30	4	0	184	8	26	218
4	35	35	1	0	233	41	44	318
5	55	61	0	1	154	13	72	239
6	25	33	0	0	256	4	28	288
7	0	0	0	0	150	40	56	246
8	56	77	0	4	32	120	9	161
9	135	254	0	1	78	7	118	203
10	66	130	17	7	10	0	445	455
11	80	177	12	7	42	578	24	644
12	51	63	5	2	80	0	16	96
13	5	5	0	0	300	1	45	346
14	20	25	0	0	190	2	10	202
15	90	230	11	4	29	12	0	41
16	46	61	10	0	151	8	19	178
17	135	275	12	4	17	0	0	17
18	30	85	4	3	17	0	18	35
19	124	228	24	7	39	0	17	56
20	10	20	0	0	166	0	30	196
21	124	173	2	1	459	65	0	524
22	35	123	11	2	46	0	8	54
23	195	502	29	7	7	0	14	21
CBD TOTAL	1337	2587	142	50	3128	909	1148	5185

1965 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT (Continued)

Zone	Dwelling Units	Population	Students		Employment			Employment Total
			Elem.	High School	Comm.	Gov't.	Other	
24	40	128	16	10	133	30	56	219
25	254	914	131	44	19	3	16	38
26	309	935	157	57	68	21	39	128
27	61	144	12	6	124	7	0	131
28	5	10	0	0	13	0	13	26
29	25	88	17	0	85	107	44	236
30	10	55	2	0	111	0	175	286
31	80	316	30	12	10	6	6	22
32	55	171	47	14	96	30	34	160
33	0	0	9	4	0	0	0	0
34	0	0	0	0	9	0	0	9
35	0	0	2	1	6	0	7	13
36	0	0	0	4	6	38	180	224
37	81	210	25	3	72	16	198	286
38	194	616	86	4	25	0	17	42
39	291	1129	154	46	27	9	21	57
40	5	5	2	0	0	7	397	404
41	0	0	0	0	12	0	328	340
42	0	0	4	1	14	3	49	66
43	0	0	1	0	5	0	17	22
44	0	0	0	0	0	0	6	6
45	209	910	139	53	0	0	38	38
46	0	0	0	0	0	0	0	0
47	0	0	0	0	0	0	0	0

1965 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT (Continued)

Zone	Dwelling Units	Population	Students		Employment			Employment Total
			Elem.	High School	Comm.	Gov't.	Other	
48	30	48	6	1	119	0	16	135
49	489	1651	181	93	30	18	31	79
50	270	939	158	89	32	21	38	91
51	0	0	0	0	0	3	0	3
52	325	1083	187	103	59	0	6	65
53	0	0	0	0	0	0	0	0
54	0	0	20	4	1	0	0	1
55	0	0	0	0	0	0	0	0
56	371	859	61	29	84	0	7	91
57	448	1183	123	75	101	115	58	274
58	1196	2684	41	14	127	1755	37	1919
59	286	936	83	42	36	14	60	110
60	438	1245	138	93	44	17	0	61
61	105	415	14	4	6	0	0	6
62	45	170	39	27	11	0	0	11
63	0	0	0	0	3	0	0	3
64	135	361	40	23	52	0	85	137
65	159	334	13	17	17	6	0	23
66	227	555	38	27	136	12	13	161
67	230	790	110	69	85	6	24	115
68	186	668	81	19	13	18	4	35
69	260	700	63	37	45	38	0	83
70	270	729	94	42	64	0	28	92
71	140	426	69	35	6	0	0	6

1965 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT (Continued)

Zone	Dwelling Units	Population	Students		Employment			Employment Total
			Elem.	High School	Comm.	Gov't.	Other	
72	244	733	98	50	29	13	20	62
73	577	2022	234	136	102	42	0	144
74	65	235	22	25	490	7	38	535
75	44	179	20	9	342	9	191	542
76	160	578	84	35	88	32	179	299
77	79	257	29	19	112	15	178	305
78	0	0	6	0	32	151	7	190
79	562	2125	399	232	67	44	24	135
80	403	1765	323	108	104	0	22	126
81	80	319	69	30	15	0	25	40
82	125	453	85	53	31	0	0	31
83	101	410	68	20	8	0	7	15
84	239	1012	255	85	42	12	30	84
85	283	1381	289	110	22	0	43	65
86	0	0	0	0	0	0	8	8
87	10	10	8	1	0	0	9	9
88	0	0	10	0	0	0	6	6
89	0	0	30	8	0	0	14	14
90	0	0	0	14	0	0	7	7
91	56	193	37	9	2	0	266	268
92	109	369	45	21	2	0	7	9
93	231	653	95	29	56	0	86	142
94	181	647	86	31	17	0	0	17
95	80	341	62	23	11	12	70	93
96	562	1935	320	112	43	24	7	74

1965 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT (Continued)

Zone	Dwelling Units	Population	Students		Employment			Employment Total
			Elem.	High School	Comm.	Gov't.	Other	
97	360	1187	166	61	28	0	38	66
98	196	762	124	48	4	0	0	4
99	308	1058	221	122	7	0	17	24
100	80	325	81	30	15	0	20	35
101	130	431	66	31	14	18	6	38
102	110	375	93	29	10	27	14	51
103	184	615	123	51	21	0	49	70
104	10	20	0	1	0	7	0	7
105	0	0	0	0	6	0	0	6
106	20	75	37	12	0	0	0	0
107	50	218	61	38	1	0	0	1
108	10	70	0	8	0	0	0	0
109	15	75	25	0	0	168	7	175
110	95	375	39	24	5	0	0	5
111	120	510	95	31	10	0	7	17
112	5	5	8	5	0	12	17	29
113	0	0	5	0	0	0	8	8
114	100	445	85	96	0	0	0	0
115	30	120	34	27	5	0	0	5
116	10	25	0	0	0	0	0	0
117	45	128	18	7	0	0	0	0
Planning Area TOTAL	14626	46430	6482	2936	6775	3802	4623	15200

1985 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT & CAPACITY

			Students		Employment			Employ.	D.U. Capacity	Zone
Zone	D.U.'s	Pop.	Elem.	H.S.	Comm.	Gov't.	Other	Total	Less 1985 D.U.'s	D.U. Capacity
1	0	0	0	0	305	1	7	318	0	0
2	0	0	0	0	434	9	225	668	0	0
3	15	15	4	0	276	8	0	284	0	15
4	21	21	1	0	370	0	65	435	0	21
5	60	73	0	1	236	15	65	316	0	60
6	41	50	0	1	412	4	38	454	0	41
7	0	0	0	0	216	0	66	282	0	0
8	29	39	0	1	50	349	16	415	0	29
9	134	205	0	1	114	100	224	438	0	134
10	41	65	10	4	13	0	685	698	0	41
11	126	277	17	11	90	996	10	1096	240	366
12	0	0	0	0	121	0	16	137	70	70
13	0	0	0	0	452	1	2	455	0	0
14	45	77	0	1	312	2	13	327	110	155
15	101	254	11	4	53	0	0	53	240	341
16	25	28	5	1	239	8	19	266	220	245
17	150	309	17	5	17	0	0	17	280	430
18	0	0	0	0	24	0	0	24	390	390
19	132	243	23	8	63	0	17	80	550	682
20	0	0	0	0	268	0	41	309	0	0
21	136	192	3	1	782	30	0	812	0	136
22	37	128	10	2	64	0	13	77	460	497
23	205	525	28	10	7	0	18	25	870	1075
C8D Total	1298	2501	129	51	4918	1532	1540	7986	3430	4728

1985 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT & CAPACITY (Continued)

			Students		Employment			Employ.	D.U. Capacity	Zone
Zone	D.U.'s	Pop.	Elem.	H.S.	Comm.	Gov't.	Other	Total	Less 1985 D.U.'s	D.U. Capacity
24	45	139	17	11	193	0	69	262	0	45
25	284	903	133	51	24	18	50	92	440	724
26	392	1181	184	74	98	0	106	204	692	1084
27	20	68	4	2	159	2	5	166	0	20
28	46	46	0	0	46	0	38	84	0	46
29	12	51	8	0	146	103	345	597	0	12
30	9	9	2	0	194	0	465	659	0	9
31	221	805	239	79	18	45	222	285	1629	1850
32	100	297	50	36	133	31	211	375	797	897
33	88	297	51	32	53	20	0	73	558	646
34	0	0	0	0	13	0	89	102	214	214
35	68	238	63	24	11	0	10	21	48	116
36	0	0	0	0	12	95	319	426	0	0
37	83	220	24	3	149	0	272	421	0	83
38	225	687	91	5	71	0	36	107	223	448
39	292	1127	143	50	39	9	55	103	919	1211
40	0	0	0	0	0	0	513	513	0	0
41	0	0	0	0	17	4	454	475	0	0
42	15	20	14	5	45	0	207	252	0	15
43	5	10	5	2	29	0	238	267	0	5
44	5	10	5	2	26	0	149	175	0	5
45	458	1785	299	127	0	0	26	26	1926	2384
46	107	376	60	39	0	0	0	0	102	209
47	84	287	116	30	30	0	0	30	620	704

1985 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT & CAPACITY (Continued)

			Students		Employment			Employ.	D.U. Capacity	Zone
Zone	D.U.'s	Pop.	Elem.	H.S.	Comm.	Gov't.	Other	Total	Less 1985 D.U.'s	D.U. Capacity
48	16	26	3	1	188	0	16	204	0	16
49	501	1697	178	91	0	18	16	34	108	609
50	719	2382	496	279	141	125	50	316	3514	4233
51	0	0	0	0	0	3	0	3	0	0
52	493	1617	340	197	73	23	5	101	1232	1725
53	243	794	224	87	43	25	50	118	503	746
54	55	188	51	22	0	0	0	0	517	572
55	39	139	36	16	0	0	50	50	72	111
56	393	913	58	29	142	0	7	149	2	395
57	478	1257	88	76	182	115	87	384	236	714
58	2726	5976	100	27	183	2556	56	2795	0	2726
59	428	1322	111	71	62	44	90	196	922	1350
60	549	1537	158	98	83	17	0	100	161	710
61	706	2171	78	21	10	210	0	220	4	710
62	90	328	65	79	15	0	0	15	122	212
63	28	99	26	0	4	0	0	4	61	89
64	148	398	40	25	83	0	88	171	254	402
65	124	230	9	14	29	6	0	35	166	290
66	265	618	39	29	200	12	13	225	5	270
67	264	902	117	79	113	6	24	143	238	502
68	187	670	75	19	13	18	4	35	168	355
69	266	714	56	35	47	44	0	91	313	579
70	274	737	83	41	96	0	21	117	154	428
71	145	437	65	36	6	0	0	6	211	356

1985 MISSOULA POPULATION, D.U.'S, STUDENTS, EMPLOYMENT & CAPACITY (Continued)

			Students		Employment			Employ.	D.U. Capacity	Zone
Zone	D.U.'s	Pop.	Elem.	H.S.	Comm.	Gov't.	Other	Total	Less 1985 D.U.'s	D.U. Capacity
72	259	780	90	49	44	13	14	71	509	768
73	577	2023	207	133	105	42	0	147	254	831
74	85	279	30	26	767	7	49	823	231	316
75	44	179	17	9	494	9	256	759	0	44
76	160	578	76	35	95	32	239	366	33	193
77	85	269	29	21	173	37	117	327	0	85
78	18	39	17	6	88	168	10	266	527	545
79	567	2135	365	232	67	51	4	122	3	570
80	387	1711	281	159	159	100	28	287	549	936
81	232	854	165	93	25	0	36	61	394	626
82	429	1523	268	190	48	0	0	48	0	429
83	329	1203	242	128	40	0	10	50	4059	4388
84	475	1844	463	186	70	46	15	131	2223	2698
85	587	2451	546	268	36	15	12	63	815	1402
86	217	753	200	98	53	18	12	83	619	836
87	228	758	210	82	0	0	14	14	1276	1504
88	50	178	46	25	0	0	6	6	819	869
89	39	139	36	15	0	0	20	20	539	578
90	129	456	119	46	0	0	10	10	1862	1991
91	133	444	85	41	31	0	160	191	1045	1178
92	159	547	77	48	2	0	10	12	289	448
93	219	629	107	63	85	0	90	175	152	371
94	400	1397	186	120	25	0	29	54	1305	1705
95	241	889	174	89	16	21	5	42	671	912
96	715	2431	374	224	82	24	10	116	5	720
97	389	1277	221	127	42	70	56	168	176	565

1985 MISSOULA POPULATION, D.U.'s, STUDENTS, EMPLOYMENT & CAPACITY (Continued)

			Students		Employment			Employ.	D.U. Capacity	Zone
Zone	D.U.'s	Pop.	Elem.	H.S.	Comm.	Gov't.	Other	Total	Less 1985 D.U.'s	D.U. Capacity
98	342	1289	212	113	7	0	0	7	226	568
99	466	1600	304	182	37	0	26	63	534	1000
100	197	731	183	73	69	0	20	89	120	317
101	293	996	137	105	16	28	6	50	282	575
102	244	853	198	117	18	29	13	60	308	552
103	223	739	144	80	64	0	68	132	424	647
104	0	0	9	3	0	30	0	30	0	0
105	0	0	0	0	11	0	0	11	0	0
106	65	238	110	39	0	0	0	0	207	272
107	151	575	170	115	1	0	0	1	218	369
108	106	407	97	85	0	0	0	0	4	110
109	5	20	5	1	0	324	6	330	0	5
110	174	652	160	80	9	0	0	9	492	666
111	298	1081	274	129	44	0	10	54	281	579
112	106	362	156	106	0	32	17	49	4	110
113	62	218	57	56	0	0	12	12	403	465
114	179	722	140	172	0	0	0	0	850	1029
115	109	397	113	108	9	0	0	9	672	781
116	94	322	86	85	0	0	0	0	43	137
117	98	405	74	69	0	0	0	0	96	194
Planning Area TOTAL	23369	73582	11383	6421	10972	6168	7386	24526	44080	67449

MISSOULA CITY-COUNTY PLANNING BOARD

PLANNING STANDARDS BY LAND USE CATEGORY

September 22, 1966

RESIDENTIAL AREAS

In planning residential areas, certain developmental standards are observed to provide a maximum level of safety, convenience, and amenities. The physical arrangement of residential dwellings in relation to other community facilities for example, should be developed in a manner that, within the limits of the natural terrain and economic feasibility, would contribute to the general welfare of the community.

The natural terrain in residential areas should be reasonable for livability and the terrain slopes should not exceed 25 percent (25 feet rise in 100 feet). Areas subject to periodic floods should be considered as marginal land, not suitable for intensive residential development.

Street systems should be designed to provide maximum circulation and best access to the areas in question. The residential street system should acknowledge the topography and provide safe and easy access to the major thoroughfare system of the community. Residential neighborhoods should be bounded but not penetrated by the major thoroughfares. Where possible, utility lines should be placed within the street rights-of-way.

Planned residential areas should be buffered from noise, smoke, heavy traffic, and invasion from incompatible land uses. Dwelling densities will vary with types of development. For residential areas, the densities will range from approximately 22 families per acre in high density areas or group housing projects, to four families or less per acre of land in low density single-family areas.

SCHOOLS

School sites should be planned in relation to both the existing pupil population and the expected future pupil population and distribution. The customary requirements of natural terrain set a limit of five percent for slopes for such facilities as playgrounds, playfields, and building sites. In addition, where possible, school site locations should be selected where the site would blend into the adjacent marginal areas, i.e., green belts.

Elementary schools are envisioned to be the social centers of a neighborhood, serving a population of 2,000 to 3,000 persons. The elementary school, serving a neighborhood, should have a minimum site size of five acres plus one acre per each 100 pupils, a maximum of 25 academic rooms, and an average of 27 pupils per classroom. The farthest dwelling served should not be in excess of three-quarters of a mile in terms of walking distance from the school site.

The senior high school generally serves a large area. However, the school should be so positioned as to serve an area located within three miles of the facility, thus saving the school district added transportation costs. The recommended minimum site size is 10 acres for the first 1,000 pupils plus one additional acre per each 100 pupils. A maximum enrollment of 1,600 students per school is recommended because of administrative difficulties with larger enrollments with an average of 25-30 students per classroom.

RECREATION

Recreation areas should be planned to provide an adequate and equitable distribution of playground, playfield, and park recreation sites within a community. The active recreational areas should be on reasonable level sites with passive recreationsl areas using a more rough terrain.

Playgrounds, normally adjoining an elementary school, serve a three-quarter mile radius area containing population range of 2,000 to 3,000 persons. A minimum site size of three acres with one acre per 800 neighborhood residents is recommended standard for the neighborhood playground. Part of the playground is generally developed and equipped with apparatus and courts for organized sports.

Playfields serve neighborhoods within an area of one mile radius. The recommended acreage is between 15 to 20 acres, normally a part of junior high school grounds.

Whereas the playground serves the pre-elementary and elementary school population age groups, a playfield caters to the 14 years of age and older population. Playfields generally contain facilities found on playgrounds in addition to various courts and relatively large areas for highly organized field games plus indoor recreational facilities. One acre of playfield land per 800 persons is the standard recommended by recreational authorities.

On a community basis, one acre of municipal parks for each 100 persons of the present or estimated future population is a commonly accepted standard. Within the total requirement, the recommended standard calls for one acre of playground and one acre of playfield for each 800 persons of the present or estimated future population, as mentioned previously. Together, these active play areas consume one-fourth of the total municipal recreational acreage requirements. The remainder is usually devoted to neighborhood parks, special recreational areas, and to large recreational parks which serve the entire community.

Neighborhood parks may be combined with playgrounds and playfields or integrated with other recreational areas, including marginal land that is made up of areas subject to flooding or with steep slopes. One acre of land per 1,000 persons is the recommended standard for neighborhood parks.

Community parks, including special recreational uses, consume the remainder of the recreational acreage. This facility requires good access to public transit and a minimum site size of 100 acres. Generally, this area provides facilities for hiking, riding, picknicking, and a secluded section for day camping.

Within the total standard of one acre of recreational land per 100 persons, public golf courses consume considerable acreage. The standard for public golf courses, in addition to any private one, is one hold per 3,000 persons.

The stadium is another facility that fits into the "remainder" of the recreational acreage category. The provision of a stadium will depend on school, college or private facilities available in the municipality. The stadium caters to large outdoor assemblies, ball games, track and field events.

Illustration: In accordance with the standard of one acre of recreation land per 100 persons, as proposed by the recreational authorities, recreation within a municipality of 10,000 would be distributed in the following manner:

Total Acreage Recommended:		100 Acres
		Acres
Playgrounds		12.5
Playfields		12.5
Neighborhood Parks		10.0
	Sub Total	35.0
Community Parks*		65.0
	Total	100.0

* Land allocated to community parks includes acreages used for a public golf course and stadium.

LOCAL RETAIL AREAS

Neighborhood retail areas should be in close proximity to one or more major streets, and should be within convenient walking distance (1/2 to 3/4 mile) from the farthest dwelling on the neighborhood's periphery. The local retail area's function should be limited to the immediate demands of the neighborhood's inhabitants. The size of these local retail areas should be no greater than that required for the convenience of the inhabitants of the neighborhood in which they are located.

COMMUNITY RETAIL AREAS

Community retail areas should be planned to serve two or more neighborhoods, their accessibility and convenience standards comparable to that of the central business district. The selectivity of goods and services, however, should not equal the magnitude of the central business districts.

CENTRAL BUSINESS DISTRICT

The Central Business District should be the major commercial and service area in the municipality. It should be designed to minimize conflict between pedestrian and vehicular traffic.

The Central Business District should have an adequate number of parking spaces around its periphery, leaving the core of the area relatively free for pedestrian movement. Vehicular access to the area should be convenient. The district should have the greatest possible variety of goods and services, sufficiently large and diversified to meet the present and the anticipated demand within the design period.

WHOLESALE AND LIGHT MANUFACTURING AREAS

The sites for wholesale and light manufacturing areas will vary in size from one and one-half to ten acres with the smaller site sizes predominating in central or close-in locations.

Railroad access will be required for only a relatively small percentage of the establishments in these categories. However, wholesale-warehouse areas should front primarily on streets and alleys which have good access to the major thoroughfare system. This area's chief function, generally, is light manufacturing and the distribution of goods and services.

INDUSTRIAL AREAS

Land uses in this category require relatively large tracts of land, preferably with less than five percent slope, with good access to railroad facilities and major thoroughfares. Heavy industrial areas should be planned in locations where municipal utilities such as power, water, and waste disposal facilities are readily available or relatively easily extendable.

ARTERIAL STREETS

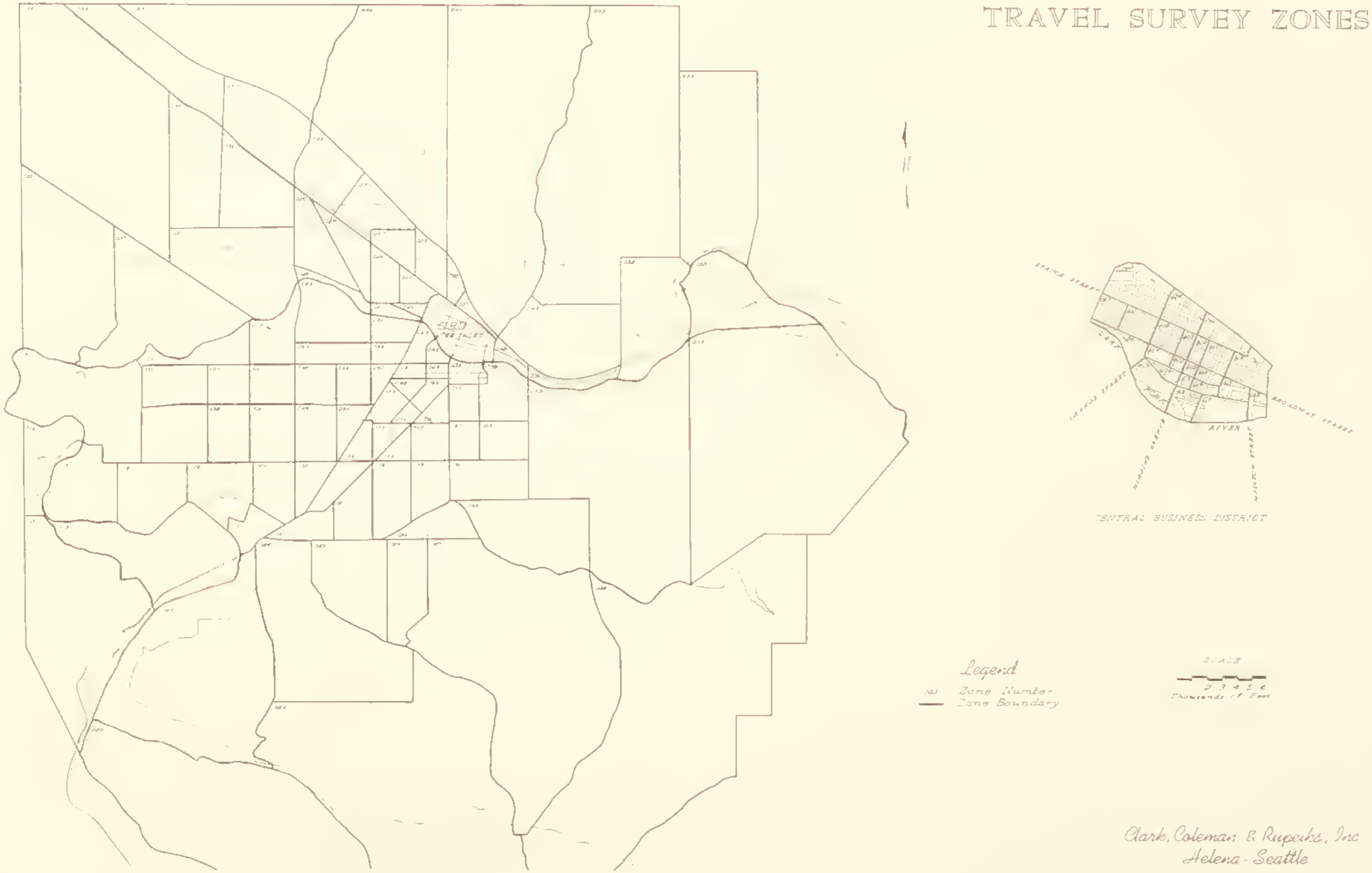
The arterial street design standards for the Missoula Urban Area will be studied, evaluated and recommended in the Transportation Plan.

No action taken at this time, awaiting recommendation of the Technical Committee.

INVENTORY OF EXISTING PARK AND RECREATION FACILITIES

Neighborhood Park + Playground	Approximate Location	Ownership			Total Acres	Developed	Undeveloped	Play Apparatus	Game Courts	Picnic Areas	Wading Pool	Rest Rooms	Field Games	Landscaping	Features
		City	School District	County											
Andr[illegible]	South Higgins and Blaine	X			.7	X									
Barbara Lane	Santa Barbara			X	[illegible]		X								
Bellevue	Bellecrest			X	7.5		X								
Bonner	Evans and Hilda	X			4.6	X		X	X	X	X	X	X	X	
Boyd	Michigan and Sunrise			X	[illegible]		X								
Canyon Village	Miller Creek Road			X	2.8		X								
Central Playground	Broadway and Adams		X		1.0	X		X	X						
Cold Springs Playground	Briggs and Orchard		X		5.0	X		X	X						
Dickinson Playground	Curtis and Burton		X		3.6	X		X	X						
Elms	Agnes and Park	X			2.3		X								
Fairviews #1	S. W. Higgins	X			8.5		X								
Fairviews #2	Westview	X			1.6		X								
Fairviews #3	Pineridge	X			.8		X								
Fairviews #4	Northview	X			1.4		X								
Fairviews #5	Crestline Drive	X			.5		X								
Fairviews	Crestline Drive	X			14.7		X								
Fish Pond	South Middlesex			X	8.0	X									
Forest	Country Club and Arcadia			X	2.6		X								
Franklin	Ninth and Kemp	X			2.9	X		X	X	X	X	X	X	X	
Franklin Playground	10th and Garfield		X		2.0	X		X	X						
Front and Main	Front and Main	X			1	X								X	
[illegible]	Duncan Drive and Village Place			X	2.4		X								
Hawthorne Playground	South 3rd Street and Hiberta		X		4.0	X		X	X						
High Park	Linda Vista Boulevard			X	15.7		X								
Highland	South Takima			X	15.6		X								
Hillside	Sharrett and South 5th			X	3.5		X								
Hi-Yan-ka	West Crestline Drive	X			1.[illegible]		X								
Honeysuckle	23rd and Briggs			X	2.5		X								
Jefferson Playground	Court and Garfield		X		4.3	X		X	X						
Johnson Playground	Johnson and North		X		.7	X		X	X						
Kiwanis	Clay and Front	X			5.0		X	X	X	X		X	X	X	
Kalaska	Pattee Canyon Drive			X	4.5		X								
Lester	Agnes and Lester	X			1.5	X							X		
Lewis & Clark Playground	Park and Benton		X		8.7	X		X	X						
Lincoln	Lincolnwood Addition			X	6.5		X								
Lincoln Playground	Lolo and Gilbert			X	1.2	X		X	X						
Lowell Playground	Phillips and Shakespeare		X		1.1	X		X	X						
Madison	South End Madison Bridge		X		1.4	X								X	
Marilyn	Linda Vista	X			5.1		X			X					
Marshall	Marshall Canyon Road			X	1.2		X			X				X	
McCormick	Toole and McCormick			X	.7	X									
McLeod	Harker and Michigan	X			2.5	X				X			X	X	
Northside	Worden and Turner	X			1.8	X		X	X	X	X	X	X	X	
Orchard Homes	11th and Tower			X	9.5		X								
Pattee	Pattee Canyon and Huckleberry			X	2.9		X								
Paxson Playground	South Higgins and Evans		X		1.9	X		X	X						
Pine View	Pine View Drive and Rattlesnake Cr			X	4.4		X								
Prescott Playground	Harrison and Elm		X		2.1	X		X	X						
East Missoula School Site	6th and Minnesota		X		7.9		X								
Rattlesnake Playground	Pine View Drive and Brayton		X		4.8	X		X	X						
Roosevelt Playground	Stephens and Bickford		X		1.0	X		X	X						
Roseland	Mount and Rosecrest			X	9.0		X								
[illegible]	5th and Chestnut	X			1.3	X		X		X		X		X	
Schmautz	42nd Avenue and Edward			X	4.4		X								
Siesta	Siesta Drive			X	1.0		X								
[illegible]	Brooks and Franklin	X			4.1	X		X						X	
Target Range Playground	South and Clements		X		19.5	X		X	X						
Wapikiya #1	Schlossel			X	3.8		X								
Wapikiya #2	Saranac and Tahoe			X	2.2		X								
Washington Playground	Kent and Bancroft		X		4.4	X		X	X						
Westside	Phillips and Hawthorne	X			2.2	X		X	X						
Whittier Playground	Worden and 3rd North		X		1.2	X		X	X	X	X	X	X	X	
Willard Playground	6th and Oak		X		1.2	X		X	X						
					254.3										
Community Park + Playfield															
Greenough	Duncan and Rattlesnake Creek	X			42.0	X		X		X	X	X			
McCormick	Orange Street Bridge and N. P.R.R.	X			26.0	(3.0 Acres)									Swim Pool
Playfair	South Russell	X			11.3	X							X		
Spartan	South Bancroft	X			24.5		X								
Sentinel Playfield	South Bancroft		X		24.0	X							X		
					157.6										

TRAVEL SURVEY ZONES



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MISSOULA COMPREHENSIVE PLAN

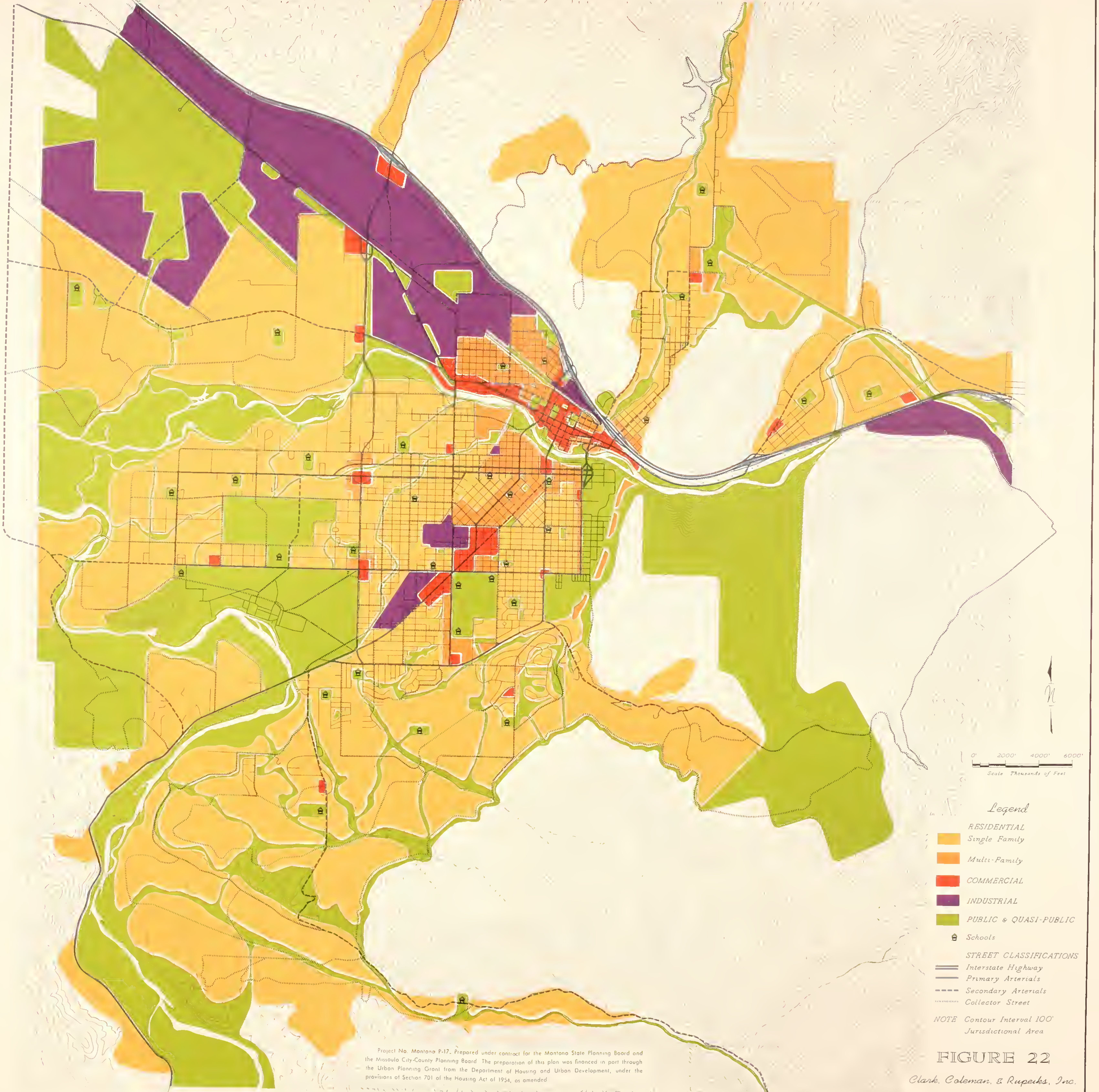

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FIGURE 22

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